

# Service Manual

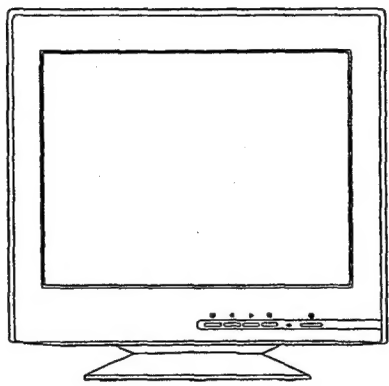
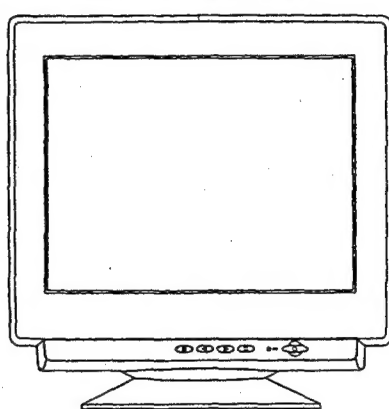
Multi-Scan Color CRT Display  
 MODEL Belnea 10 80 10 (TX-D2171XD-E)  
 (M-2171XD-E)  
 Belnea 10 80 15 (M-1F71XD-ET)

**Chassis No. GV3**  
**Chassis Family No.21GV3**

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## THE DIFERENCES ARE AS FOLLOWS

Model Item	<b>Belnea 10 80 10</b> <b>(TX-D2171XD-E)</b>	<b>(M-2171XD-E)</b>	<b>Belnea 10 80 15</b> <b>(M-1F71XD-ET)</b>
Applicable guidelines	TCO'92		TCO'95
Plastic cabinet material	ABS + PVC		PC + ABS
Plastic cabinet shape	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>(see page 11)</p>  </div> <div style="text-align: center;"> <p>(see page 12)</p>  </div> </div>		

### **WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public.

It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.

Products powered by electricity should be serviced or repaired only by experienced professional technicians.

Any attempt to service or repair the product or products dealt within this service information by anyone else could result in serious injury or death.

## SAFETY PRECAUTIONS

### 1 CAUTION:

No modification of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety checks and servicing guide lines.

### 2 SAFETY CHECK

Care should be taken while servicing this CRT display because of the high voltage used in the deflection circuits. These voltages are exposed in such areas as the associated flyback and yoke circuits.

### 3 FIRE & SHOCK HAZARD

- 3-1 Insert an isolation transformer between the CRT display and AC power line before servicing the chassis.
- 3-2 In servicing pay attention to original lead dress especially in the high voltage circuit. If a short circuit is found, replace all parts which have been overheated as a result of the short circuit.
- 3-3 All the protective devices must be reinstalled per original design.
- 3-4 Soldering must be inspected for possible cold solder joints, frayed leads, damaged insulation, solder splashes or sharp solder points. Be certain to remove all foreign material.

### 4 LEAKAGE CURRENT COLD CHECK

- 4-1 Unplug the AC cord and connect a jumper between the two prongs on the plug.
- 4-2 Turn the CRT display power switch "on".
- 4-3 Measure the resistance value with an ohmmeter between the jumpered AC plug and each exposed metallic part on the CRT display such as the metal frame, screwheads, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be 1.8 megohm minimum.

### 5 LEAKAGE CURRENT HOT CHECK

- 5-1 Plug the AC cord directly into the AC outlet. Do not use an isolation transformer during this check.
- 5-2 Connect a 1500 ohm, 10 watt resistor, paralleled by a 0.15 $\mu$ F capacitor between each exposed metallic part and a good earth ground (as shown in Fig.1).
- 5-3 Use an AC voltmeter with 1000 ohm/volt or more sensitivity and measure the AC voltage across the combination 1500 ohm resistor and 0.15 $\mu$ F capacitor.
- 5-4 Move the resistor connection to each exposed metallic part and measure the voltage.
- 5-5 Reverse the polarity of the AC plug in the AC outlet and repeat the above measurement.
- 5-6 Voltage measured must not exceed 7.5 volt RMS, from any exposed metallic part to ground. A leakage current tester may be used in the above hot check, in which case any current measured must not exceed 5.0 milliamp. In the case of a measurement exceeding the 5.0 milliamp value, a rework is required to eliminate the chance of a shock hazard.

*Note: High voltage is present when this CRT display is operating. Always discharge the anode of the picture tube to the display chassis to prevent shock hazard.*

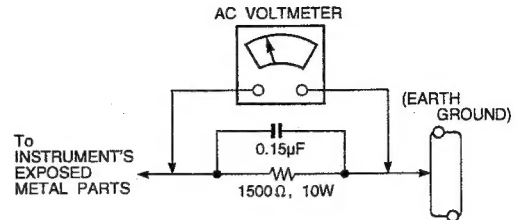


Fig.1

### 6 IMPLOSION PROTECTION

Picture tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage and scratching during installation. Use only Panasonic replacement picture tubes.


### 7 X-RADIATION

**WARNING :** The only potential source of X-Radiation is the picture tube. However when the high voltage circuitry is operating properly there is no possibility of X-Radiation problem. The basic precaution which must be exercised is to keep the high voltage at the following factory-recommended level.

*Note: It is important to use an accurate periodically calibrated high voltage meter.*

- 7-1 If can not be adjust (automatic) 27.0 kV at immediate service is required to prevent the possibility of premature component failure.
- 7-2 To prevent X-Radiation possibility it is essential to use the specified picture tube.

### IMPORTANT SAFETY NOTICE

There are special components used in this CRT displays which are important for safety. These parts are identified by the international symbol  on the schematic diagram and on the replacement parts list. It is essential that these critical parts should be replaced with manufacture's specified parts to prevent X-RADIATION, shock, fire or other hazards. Do not modify the original design or this will void the original parts and labor guarantee.

# GENERAL INFORMATION

## 1. OUTLINE

This monitor is 21 inch (20.0" viewable) multi-scan color CRT display with the following nice features.

Original SSP-LSI (Super Signal Processor) is newly introduced, which optimize the function.

## 2. FEATURES

### 2-1 SSP-LSI (Super Signal Processor) Mounted

Precise wave forms are generated for the correction of each geometric distortion.

### 2-2 Self Optimized-Picture Size and Position

Any non-preset timing will be roughly tuned by SSP-LSI for comfortable size and position.

### 2-3 Power Saving

Built-in Power Saving function based on VESA-DPMS standard.

Power energy shall be saved by controlling the circuit in accordance with power saving signal from computer.

### 2-4 OSD (On Screen Display) Function

OSD (5 Languages) function is new and excellent man-machine interface.

Anyone is able to set up the picture as he like through OSD menu.

### 2-5 Self Test Function

Self Testing picture comes out by pushing any key in the case of no-connection with computer or power saving operation.

This function shows if monitor is alive or not and can be used for self aging test.

### 2-6 Ergonomic Design

- Low emission design to meet MPR II & TCO'92 (TX-D2171XD-E/M-2171XD-E)/TCO'95(M-1F71XD-ET)
- ESF (Electrostatic filed) free coating on CRT

### 2-7 Line Harmonics Compliant with EN61000-3-2

### 2-8 Multi-Scan with Digital Technology

8-bit micro computer controls the circuit operation to meet with wide range signal of  $f_H=30\sim115\text{kHz}$  and  $f_V=50\sim160\text{Hz}$ .

So VGA, SVGA, XGA(1024X768), SXGA(1280X1024) and UXGA(1600X1200) up to 90Hz refresh rate are applicable.

### 2-9 1 Factory Preset (+7 Reservation), 13 User Memories

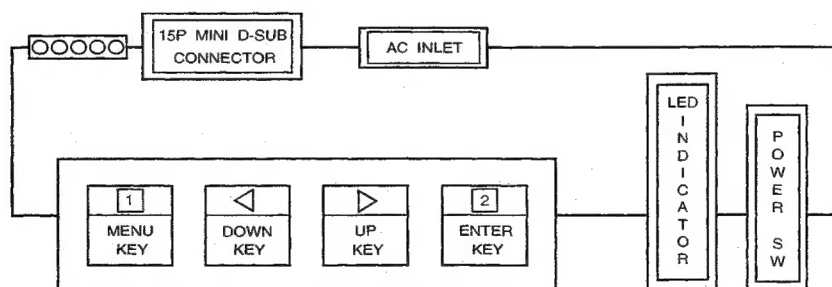
- 1 Standard modes are preset at the factory. 7 modes are reserved at the factory.
- 13 user memories are available to set the user's own timing and display information.

### 2-10 Flat Face and Fine Dot Pitch

Flat face CRT with fine dot trio pitch 0.25mm (Horizontal: 0.218mm / Vertical: 0.130mm) gives a crispy and comfortable sight of the screen.

# SPECIFICATION

## 1. DIAGRAM



1.1 POWER SW, LED, [1]-key (MENU), <-key (DOWN), >-key (UP), and [2]-key (ENTER) are located on the front panel.

1.2 Signal connectors and AC inlet are located on the back side of the cabinet.

1.3 OSD menu includes the following function.

CONTRAST	BRIGHTNESS	DEGAUSS
RECALL	H. POSITION	H. SIZE
V. POSITION	V. SIZE	V. PINCUSHION
TRAPEZOID	PARALLELOGRAM	ROTATION
COLOR TEMPERATURE	DISPLAY FREQUENCY	

VIDEO INPUT LEVEL	VIDEO INPUT SELECT
H. MOIRE	V. MOIRE
	LANGUAGES

※) CONTRAST can be directly controlled with </>-key.

※) With sync signal, OSD menu appears by pushing [1]-key and [2]-key.

Without sync signal, self test menu appears by pushing any key.

## 2. MECHANICAL SPECIFICATIONS

..... refer to the attached drawing

### 2.1 Dimension

Height : 487 mm typ.  
Width : 505 mm typ.  
Depth : 519 mm (TX-D2171XD-E) typ.  
: 508 mm (M-2171XD-E/M-1F71XD-ET) typ.

### 2.2 Net Weight : 28.5 kg typ.

### 2.3 Maximum Viewable Phosphor Display Area : 406X304 mm (min.)

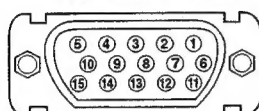
## 3. CONNECTORS

### 3.1 Signal connector : 15P Mini D-Sub connector x1

: BNC CONNECTOR x5

### 3.2 AC inlet : CEE 22 typed connector

<15P Mini D-Sub Pin assignment>



1 ... RED	6 ... GROUND	11 ... GROUND
2 ... GREEN	7 ... GROUND	12 ... SDA (DDC)
3 ... BLUE	8 ... GROUND	13 ... H. SYNC.
4 ... GROUND	9 ... SENSE (DDC)	14 ... V. SYNC.
5 ... GROUND (DDC)	10 ... GROUND	15 ... SCL (DDC)

## 4. CRT SPECIFICATIONS

Part No.	M51KYY540X, Screen radius:2R		
Type	21" (20.0" Viewable), 90°, ø29.1, in-line gun		
Cathode	New Impregnated Quick-Heating Cathode		
Dot Trio Pitch	0.25mm		
Dot Pitch	0.218mm horizontal / 0.130mm vertical		
Bulb	Dark Tint (Total Transmission=39.5%)		
Face Coating	New AGRAS Coat		
Shadow Mask	Advanced Invar Mask		
Implosion Protection	Tension-band with Mounting Lugs		
Focusing Method	Electrostatic		
Focusing Lens	Bipotential		
Deflection Method	Magnetic		
Phosphor	Persistence	R,G,B Medium short persistence (Hi-EU RED)	
	Red	x: 0.635 (typical)	y: 0.333 (typical)
	Green	x: 0.280 (typical)	y: 0.595 (typical)
	Blue	x: 0.152 (typical)	y: 0.063 (typical)

## 5. ELECTRICAL SPECIFICATIONS

### 5.1 Standard conditions ... Except special items

Display image	Green, full "H" characters with a border line. (7 x 9 dots) Video signal : 100% duty Display area : 380 mm x 285 mm
Video signal level	0.7 V pp
Contrast, Brightness	Contrast : Max., Brightness : Center point
Ambient Temperature	20±5°C (68 ± 9°F)
Input Voltage	AC 120 V, 60 Hz or AC 220 V 50 Hz
Terrestrial magnetism	Vertical field : northern hemisphere field 40μT (southern hemisphere field -40μT) Horizontal field : no field
Viewing direction	Parallel to the CRT axis
Measurements	After an initial warming up time of more than 30 minutes.
Ambient light	200±50 lx
Display mode	1600 x 1200 (93.75 kHz, 75.00 Hz)

## 5.2 POWER

### 5.2.1 Power supply ... Commercial power source

Input voltage	AC 90 - 132 V, AC 198 - 264 V
Power frequency	50 Hz ± 3 Hz, 60 Hz ± 3 Hz
Input current	2.0 A Max. (at 100-120V AC), 1.5 A Max. (at 220-240V AC)
Inrush current (at 20° C)	25 A Max. (at 100-120V AC), 40 A Max. (at 220-240V AC)
Power consumption	160 W (Typ.)

### 5.2.2 Power Management for Power Saving

Power saving system is designed based upon VESA DPMS standard (Version : 1.0)

#### 1) Power consumption and recovery time.

*1 APM State	SIGNALS			MONITOR POWER CONSUMPTION	RECOVERY TIME TO ON STATE	INDICATOR
	H. Sync	V. Sync	VIDEO			
ON	*3 NOR- MAL	*3 NOR- MAL	*2 ACTIVE	*4 100%	—	Green
STAND-BY	No Sync or *5 < 6 kHz	> 40 Hz	BLANK	< 25 W	< 4S	Yellow
SUSPEND	> 10 kHz	No Sync or *5 < 20 Hz	BLANK	< 25 W	< 4S	Yellow
OFF	No Sync or *5 < 6 kHz	No Sync or *5 < 20 Hz	BLANK	< 8 W	< 20S	Yellow

\*\* The transition time from ON state to each APM states is 5 seconds minimum.

\*1 : APM : Advanced Power Management.

\*2 : Measurement Condition of power consumption for ON state:

DISPLAY IMAGE : WHITE full "H" characters (7 × 9 dots)

\*3 : NORMAL : See "5.4 ACCEPTABLE TIMING".

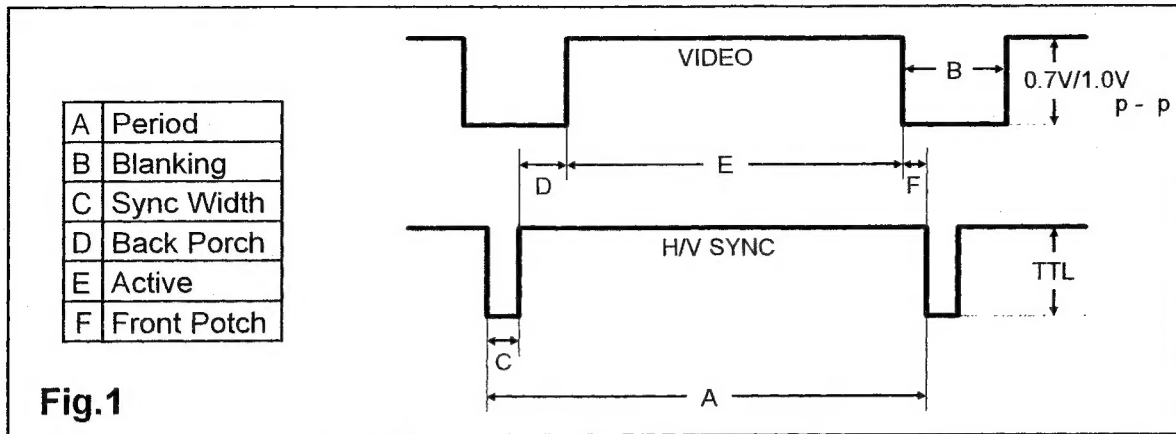
\*4 : Power Consumption is measured at AC 100-240V.

\*5 : Power saving operation is done at less than specified value in the list.

### 5.3 Standard timing

- Following 1 mode is preset in the memory as standard timing at the factory and 7 modes are reserved.
- Fig-1 shows a definition of timing and signal level.
- Electrical performance is specified based on 1600 x 1200 mode unless otherwise mentioned.

# TIMING CHART



		PRESET	RESERVATION	RESERVATION
		MODE - 1	MODE - 2	MODE - 3
		1600 × 1200 (75)	640 × 480 (60)	800 × 600 (75)
DOT CLOCK		202.5000 MHz	25.1750 MHz	49.5000 MHz
H	f H	93.7500 kHz	31.4688 kHz	46.8750 kHz
	A - PERIOD	10.667 μs ( 2,160 dots )	31.778 μs ( 800 dots )	21.333 μs ( 1,056 dots )
	B - BLANKING TIME	2.765 μs ( 560 dots )	6.356 μs ( 160 dots )	5.172 μs ( 256 dots )
	C - SYNC WIDTH	0.948 μs ( 192 dots )	3.813 μs ( 96 dots )	1.616 μs ( 80 dots )
	D - BACK PORCH	1.501 μs ( 304 dots )	1.907 μs ( 48 dots )	3.232 μs ( 160 dots )
	E - ACTIVE TIME	7.901 μs ( 1,600 dots )	25.422 μs ( 640 dots )	16.162 μs ( 800 dots )
	F - FRONT PORCH	0.316 μs ( 64 dots )	0.636 μs ( 16 dots )	0.323 μs ( 16 dots )
V	f V	75.0000 Hz	59.9405 Hz	75.0000 Hz
	A - PERIOD	13.333 ms ( 1,250 lines )	16.683 ms ( 525 lines )	13.333 ms ( 625 lines )
	B - BLANKING TIME	0.533 ms ( 50 lines )	1.430 ms ( 45 lines )	0.533 ms ( 25 lines )
	C - SYNC WIDTH	0.032 ms ( 3 lines )	0.064 ms ( 2 lines )	0.064 ms ( 3 lines )
	D - BACK PORCH	0.491 ms ( 46 lines )	1.049 ms ( 33 lines )	0.448 ms ( 21 lines )
	E - ACTIVE TIME	12.800 ms ( 1,200 lines )	15.253 ms ( 480 lines )	12.800 ms ( 600 lines )
	F - FRONT PORCH	0.011 ms ( 1 lines )	0.318 ms ( 10 lines )	0.021 ms ( 1 lines )
SYNC POLARITY(H/V)		Positive / Positive	Negative / Negative	Positive / Positive

		RESERVATION	RESERVATION	RESERVATION
		MODE - 4	MODE - 5	MODE - 6
		1024 × 768 (75)	MAC 1152 × 870 (75)	1280 × 1024 (60)
DOT CLOCK		78.7500 MHz	100.0000 MHz	108.5000 MHz
H	f H	60.0229 kHz	68.6813 kHz	63.9741 kHz
	A - PERIOD	16.660 μs ( 1,312 dots )	14.560 μs ( 1,456 dots )	15.631 μs ( 1,696 dots )
	B - BLANKING TIME	3.657 μs ( 288 dots )	3.040 μs ( 304 dots )	3.834 μs ( 416 dots )
	C - SYNC WIDTH	1.219 μs ( 96 dots )	1.280 μs ( 128 dots )	1.180 μs ( 128 dots )
	D - BACK PORCH	2.235 μs ( 176 dots )	1.440 μs ( 144 dots )	2.065 μs ( 224 dots )
	E - ACTIVE TIME	13.003 μs ( 1,024 dots )	11.520 μs ( 1,152 dots )	11.797 μs ( 1,280 dots )
	F - FRONT PORCH	0.203 μs ( 16 dots )	0.320 μs ( 32 dots )	0.590 μs ( 64 dots )
V	f V	75.0286 Hz	75.0616 Hz	60.0132 Hz
	A - PERIOD	13.328 ms ( 800 lines )	13.322 ms ( 915 lines )	16.663 ms ( 1,066 lines )
	B - BLANKING TIME	0.533 ms ( 32 lines )	0.655 ms ( 45 lines )	0.657 ms ( 42 lines )
	C - SYNC WIDTH	0.050 ms ( 3 lines )	0.044 ms ( 3 lines )	0.047 ms ( 3 lines )
	D - BACK PORCH	0.466 ms ( 28 lines )	0.568 ms ( 39 lines )	0.594 ms ( 38 lines )
	E - ACTIVE TIME	12.795 ms ( 768 lines )	12.667 ms ( 870 lines )	16.006 ms ( 1,024 lines )
	F - FRONT PORCH	0.017 ms ( 1 lines )	0.044 ms ( 3 lines )	0.016 ms ( 1 lines )
SYNC POLARITY(H/V)		Positive / Positive	Negative / Negative	Positive / Positive



		RESERVATION	RESERVATION
		MODE - 7	MODE - 8
		1280 × 1024 (75)	1600 × 1200 (90)
DOT CLOCK		135.0000 MHz	243.0000 MHz
H	f H	79.9763 kHz	112.5000 kHz
	A - PERIOD	12.504 μs ( 1,688 dots )	8.889 μs ( 2,160 dots )
	B - BLANKING TIME	3.022 μs ( 408 dots )	2.305 μs ( 560 dots )
	C - SYNC WIDTH	1.067 μs ( 144 dots )	0.790 μs ( 192 dots )
	D - BACK PORCH	1.837 μs ( 248 dots )	1.251 μs ( 304 dots )
	E - ACTIVE TIME	9.481 μs ( 1,280 dots )	6.584 μs ( 1,600 dots )
	F - FRONT PORCH	0.119 μs ( 16 dots )	0.263 μs ( 64 dots )
V	f V	75.0247 Hz	90.0000 Hz
	A - PERIOD	13.329 ms ( 1,066 lines )	11.111 ms ( 1,250 lines )
	B - BLANKING TIME	0.525 ms ( 42 lines )	0.444 ms ( 50 lines )
	C - SYNC WIDTH	0.038 ms ( 3 lines )	0.027 ms ( 3 lines )
	D - BACK PORCH	0.475 ms ( 38 lines )	0.409 ms ( 46 lines )
	E - ACTIVE TIME	12.804 ms ( 1,024 lines )	10.667 ms ( 1,200 lines )
	F - FRONT PORCH	0.013 ms ( 1 lines )	0.009 ms ( 1 lines )
SYNC POLARITY(H/V)		Positive / Positive	Positive / Positive

		ADJUSTMENT	ADJUSTMENT	ADJUSTMENT
		GV3 - 1	GV3 - 2	GV3 - 3
DOT CLOCK		22.6000 MHz	64.0442 MHz	134.9800 MHz
H	f H	29.5039 KHz	54.0002 KHz	82.5061 KHz
	A - PERIOD	33.894 μs ( 766 dots )	18.518 μs ( 1,186 dots )	12.120 μs ( 1,636 dots )
	B - BLANKING TIME	6.018 μs ( 136 dots )	4.513 μs ( 289 dots )	3.230 μs ( 436 dots )
	C - SYNC WIDTH	4.115 μs ( 93 dots )	1.718 μs ( 110 dots )	1.096 μs ( 148 dots )
	D - BACK PORCH	1.593 μs ( 36 dots )	2.498 μs ( 160 dots )	1.852 μs ( 250 dots )
	E - ACTIVE TIME	27.876 μs ( 630 dots )	14.006 μs ( 897 dots )	8.890 μs ( 1,200 dots )
	F - FRONT PORCH	0.310 μs ( 7 dots )	0.297 μs ( 19 dots )	0.282 μs ( 38 dots )
V	f V	48.0520 Hz	77.0331 Hz	125.9635 Hz
	A - PERIOD	20.811 ms ( 614 lines )	12.981 ms ( 701 lines )	7.939 ms ( 655 lines )
	B - BLANKING TIME	0.915 ms ( 27 lines )	0.741 ms ( 40 lines )	0.485 ms ( 40 lines )
	C - SYNC WIDTH	0.102 ms ( 3 lines )	0.111 ms ( 6 lines )	0.048 ms ( 4 lines )
	D - BACK PORCH	0.712 ms ( 21 lines )	0.519 ms ( 28 lines )	0.364 ms ( 30 lines )
	E - ACTIVE TIME	19.896 ms ( 587 lines )	12.241 ms ( 661 lines )	7.454 ms ( 615 lines )
	F - FRONT PORCH	0.102 ms ( 3 lines )	0.111 ms ( 6 lines )	0.073 ms ( 6 lines )
SYNC POLARITY(H/V)		Negative / Negative	Negative / Negative	Negative / Negative

		ADJUSTMENT
		GV3 - 5
DOT CLOCK		241.2000 MHz
H	f H	115.4619 KHz
	A - PERIOD	8.661 μs ( 2,089 dots )
	B - BLANKING TIME	2.189 μs ( 528 dots )
	C - SYNC WIDTH	0.759 μs ( 183 dots )
	D - BACK PORCH	1.356 μs ( 327 dots )
	E - ACTIVE TIME	6.472 μs ( 1,561 dots )
	F - FRONT PORCH	0.075 μs ( 18 dots )
V	f V	164.9456 Hz
	A - PERIOD	6.063 ms ( 700 lines )
	B - BLANKING TIME	0.442 ms ( 51 lines )
	C - SYNC WIDTH	0.026 ms ( 3 lines )
	D - BACK PORCH	0.398 ms ( 46 lines )
	E - ACTIVE TIME	5.621 ms ( 649 lines )
	F - FRONT PORCH	0.017 ms ( 2 lines )
SYNC POLARITY(H/V)		Negative / Negative

#### 5.4 Acceptable timing

- If your timing is within following specification, this CRT display can automatically function with a certain size and position.

Horizontal: Sync frequency: 30.0 ~ 115.0 kHz  
Blanking Time:  $\geq 2.1 \mu\text{s}$   
Back Porch:  $\geq 1.2 \mu\text{s}$   
Front Porch:  $\leq$  Back Porch  
Sync Width:  $\geq 0.7 \mu\text{s}$

Vertical: Sync frequency: 50.0 ~ 160.0 Hz  
Blanking Time:  $\geq 0.44 \text{ ms}$   
Back Porch:  $\geq 0.4 \text{ ms}$   
Sync Width:  $\geq 0.02 \text{ ms}$

- Several items like size, position and distortion can be adjusted through OSD menu, and if you want to keep it, please push the key  $\square$  for memory, or keep the key untouched for about 20 seconds, it is automatically memorized.

NOTE : In case of RECALL, the key is untouched for about 30 seconds, RECALL function will be cancelled.

Please note, however, that there is the case you can not get the size and/or position you want, (for example, in case Display video Time is too short, you can't get bigger size of the image.)

- The CRT adopted in this CRT display is designed to minimize the moire phenomenon at suitable size for typical display modes. However, there might be a display format among many formats, in which the moire phenomenon appears on this display.

#### 5.5 Signal level and input impedance

##### 5.5.1 Video Signal level

- This CRT display is adjusted at the factory using 0.7V p-p Video Signal, Black level is 0V.
- This CRT display is compatible with 1.0V p-p Video Signal by using Video input level selection.

##### 5.5.2 Sync Signal level

- H/V Separate, H/V Mixed : TTL level
- Sync on Green : 0.3 V p-p  $\pm 0.015 \text{ V}$

##### 5.5.3 Input impedance

- Video input:  $75 \Omega$
- Sync input:  $\geq 1 \text{ k}\Omega$

#### 5.6 Display performance

##### 5.6.1 Display area

###### 1) PRESET TIMING

MODE 1, 1600 x 1200 @75Hz

WIDTH : 380 mm  $\pm 5 \text{ mm}$

HEIGHT : 285 mm  $\pm 5 \text{ mm}$

###### 2) RESERVATION TIMING

MODE 2, 640 x 480 @60Hz

WIDTH : 380 mm  $\pm 7 \text{ mm}$

HEIGHT : 285 mm  $\pm 7 \text{ mm}$

MODE 3, 800 x 600 @75Hz

WIDTH : 380 mm  $\pm 7 \text{ mm}$

HEIGHT : 285 mm  $\pm 7 \text{ mm}$

MODE 4, 1024 x 768 @75Hz

WIDTH : 380 mm  $\pm 7 \text{ mm}$

HEIGHT : 285 mm  $\pm 7 \text{ mm}$

MODE 5, 1152 x 870 @75Hz

WIDTH : 380 mm  $\pm 7 \text{ mm}$

HEIGHT : 285 mm  $\pm 7 \text{ mm}$

MODE 6, 1280 x 1024 @60Hz

WIDTH : 355 mm  $\pm 7 \text{ mm}$

HEIGHT : 284 mm  $\pm 7 \text{ mm}$

MODE 7, 1280 x 1024 @85Hz

WIDTH : 355 mm  $\pm 7 \text{ mm}$

HEIGHT : 284 mm  $\pm 7 \text{ mm}$

MODE 8, 1600 x 1200 @85Hz

WIDTH : 380 mm  $\pm 7 \text{ mm}$

HEIGHT : 285 mm  $\pm 7 \text{ mm}$

###### 3) FULL SCAN

WIDTH : 406 mm

HEIGHT : 304 mm

##### 5.6.2 Centering

###### 1) PRESET TIMING (MODE1)

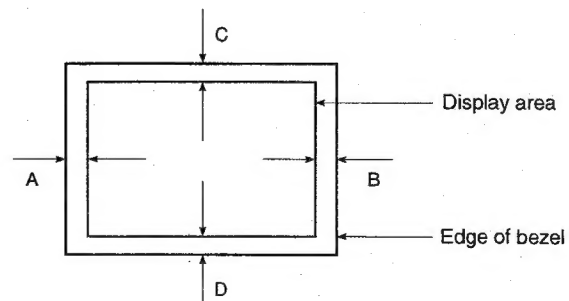
IA - BI  $\leq 4.0 \text{ mm}$

IC - DI  $\leq 4.0 \text{ mm}$

###### 2) RESERVATION TIMING (MODE2~8)

IA - BI  $\leq 7.0 \text{ mm}$

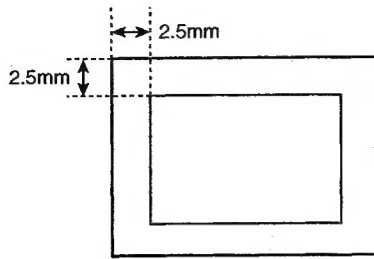
IC - DI  $\leq 7.0 \text{ mm}$





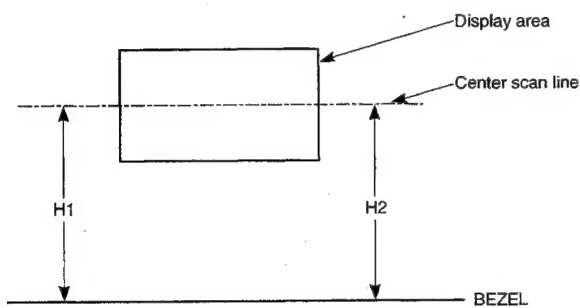
### 5.6.3 Distortion

Inside 2.5mm frame



### 5.6.4 Rotation

$$|H1 - H2| \leq 2.5 \text{ mm}$$



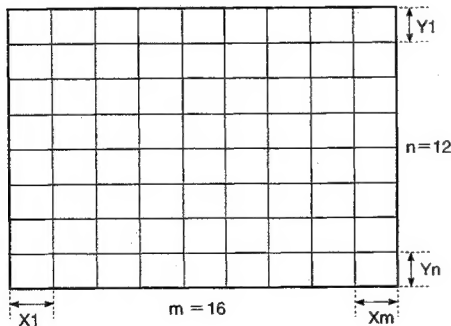
### 5.6.5 Linearity

Horizontal linearity

$$= \frac{X_{\text{max.}} - X_{\text{min.}}}{X_{\text{max.}} + X_{\text{min.}}} \times 100 \% \leq 7 \%$$

Vertical linearity

$$= \frac{Y_{\text{max.}} - Y_{\text{min.}}}{Y_{\text{max.}} + Y_{\text{min.}}} \times 100 \% \leq 6 \%$$



### <Conditions>

Display image ----- crosshatch pattern

Maximum and minimum values should not be adjacent to each other.

X max. is maximum value among X1~Xm

X min. is minimum value among X1~Xm

Y max. is maximum value among Y1~Yn

Y min. is minimum value among Y1~Yn

## 5.7 General performance

### 5.7.1 Maximum pixel clock

250.0 MHz

### 5.7.2 Maximum luminance

Value	100 cd/m <sup>2</sup> (min.) for 5% white field at the center of the display area. 90 cd/m <sup>2</sup> (min.) for 100% white field at the center of the display area. Specified by 9300 K + 8 MPCD
Conditions	Display image : White flat field Luminance : Max. (Contrast : Max.) (Brightness : Center point)

### 5.7.3 Minimum luminance

Value	≤ 17 cd/m <sup>2</sup> at the center of the display area. Specified by 9300 K + 8 MPCD
Conditions	Display image : White full flat field Luminance : Min. (Contrast : Min.) (Brightness : Center point)

#### 5.7.4 Brightness variation

Value	75 % (Min.) Variation = C/A X 100
Conditions	Display image : White full flat field Luminance : Max. (Contrast : Max.) (Brightness : Center point) A ; Luminance at center position C ; Luminance at position of lowest brightness

#### 5.7.5 Display area regulation

	Display area variation	Range of variation
Due to Luminance	within 1.0 %	17~100 cd/m <sup>2</sup> (white flat field)
Due to Power Supply	within 0.5 %	AC : 90-132 V or 198-264 V
Due to Temperature	within 1.5%	20 ° C ± 20° C

#### 5.7.6 Color Point

< Conditions >

Display image : White flat field at the center of the display area.

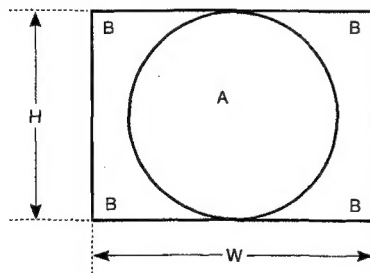
Luminance : Brightness center point.

Contrast	max	min
Value	9300 K + 8 MPCD $x = 0.283 \pm 0.020$ $y = 0.298 \pm 0.020$	9300 K + 8 MPCD $x = 0.283 \pm 0.020$ $y = 0.298 \pm 0.020$

#### 5.7.7 Misconvergence

Center area of display (A) : 0.30 mm (Max.)

Corner area of display (B) : 0.40 mm (Max.)



<Conditions>

Display image : Crosshatch pattern mixed with R, G and B colors.

Convergence gauge : KLEIN CM7AG or equivalent.

Display area : W x H 380 x 285 mm

#### 5.7.8 White Uniformity

$$x_a - x_c \leq \pm 0.015$$

$x_a$ : x coordinate at CRT center

$x_c$ : x coordinate at the any other point

$$y_a - y_c \leq \pm 0.015$$

$y_a$ : y coordinate at the CRT center

$y_c$ : y coordinate at the any other point

<Conditions>

Display : White flat field

Luminance : 100 cd/m<sup>2</sup> at the center of display area

Display area: 380 x 285 mm

#### 5.7.9 Purity

Conspicuous mislanding shall not be visible within display area at a distance of 60cm from CRT surface.

<Conditions>

Display image : Red / Green / Blue flat field and White field

Luminance : Contrast max, Brightness Center point

Display area : 380 x 285 mm

#### 5.7.10 Jitter

Invisible at a distance of 60 cm from CRT surface.

### 6. ENVIRONMENTS

#### 6.1 Ambient temperature, humidity and altitude

	Operating	Storage and shipment
Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ +60° C (-4 ~ 140° F)
Humidity	5 ~ 90 % *	5 ~ 90 % *
Altitude	3,000 m (Max.) (10,000 ft)	12,000 m (Max.) (40,000 ft)

\* Non - condensation

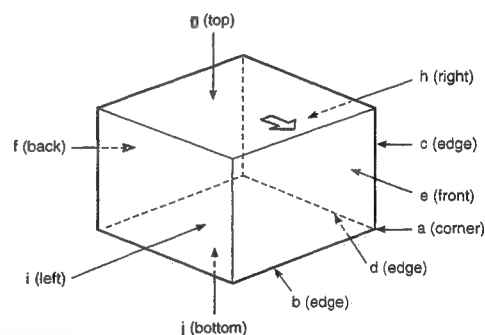
## 6.2 Vibration and shock

### 6.2.1 Vibration

Order of tests		Direction of vibration		Acceleration		Frequency	Sweep	Test time		
				Non-operation	Storage and shipment					
Unpacked	1	Vertical	Up to down	2.9 m/s <sup>2</sup> (0.3 G)		5 - 55 Hz	120 s	30 min.		
	2	Horizontal	Front to back					15 min.		
	3		Right to left							
Packed	1	Vertical	Up to down		12.3 m/s <sup>2</sup> (1.25 G)	5 - 50 Hz	810 s Log sweep	40 min.		
	2	Horizontal	Front to back		7.4 m/s <sup>2</sup> (0.75 G)			20 min.		
	3		Right to left							

### 6.2.2 Shock (Drop test)

Unpacked	20 G One time for each face (6 faces) (non-operation)			
Packed	Order of drop	Face to drop is to face the floor. (See the figure)	Height	Number of drop
	1	a, b, c, d, e, g, h, i	46 cm	1 time for each
	2	j	55 cm	



## 7. REGULATORY STANDARDS

### 7.1 Safety standards

Applicable standards

- UL 1950, Listing
- CSA 22.2 No. 950, Certification
- TüV (EN60950, IEC950) / GS (ZH1)
- NORDIC (SEMKO, NEMKO, DEMKO, FIMKO)

### 7.2 X-ray standards

Applicable standards

- DHHS, 21 CFR Subchapter J
- HC (HWC)
- PTB; Approval

### 7.3 EMC standards

Applicable standards

- VCC I class 2
- FCC part 15, subpart B, class B (up to 101 kHz)
- IC (DOC) class B (up to 101 kHz)
- CISPR 22 class B (EN55022)
- CE Marking

<EMI test pattern>

White, full "H" characters (9x14 dots), block (12x24 dots)

## 8. OTHERS

Applicable programs

- MPR II Radiation
- TCO '92 (TX-D2171XD-E/M-2171XD-E)/TCO' 95 (M-1F71XD-ET)
- Energy Star
- ISO9241-3 (Ergonomics)

## 9. POWER CORD

- Northern Hemisphere Version ... UL/CSA approved power cord (North America and Japan) (Wall Type)
- European Version ... VDE approved power cord (PC Type)
- Australia, New Zealand Version ... None

## 10. SIGNAL CABLE

Signal cable with Mini D-Sub 15P connectors at both ends.

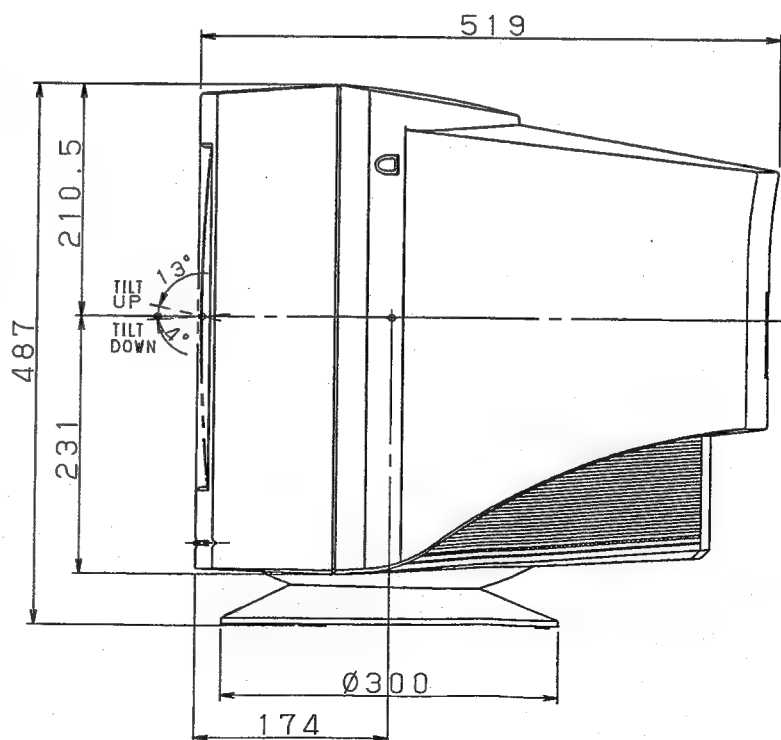
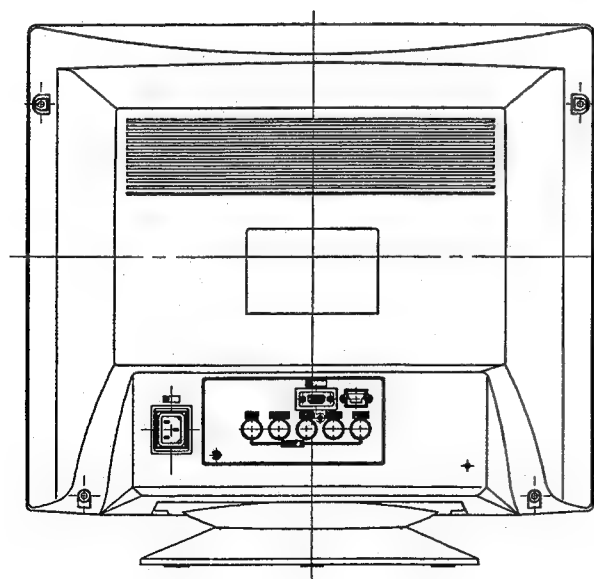
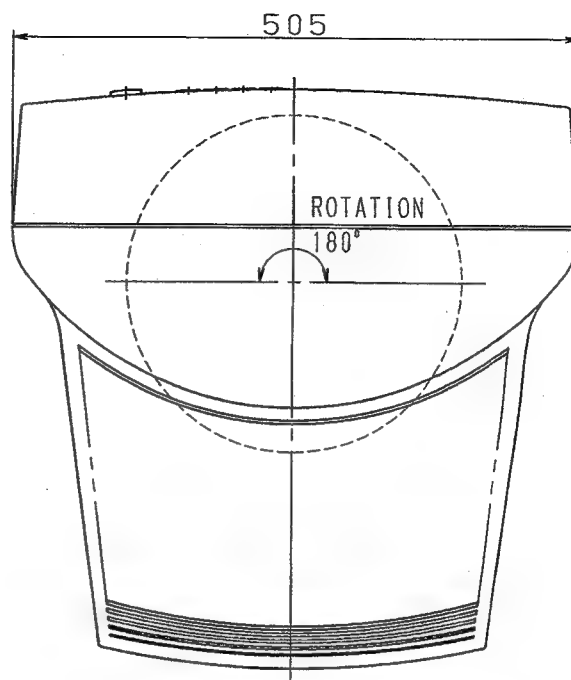
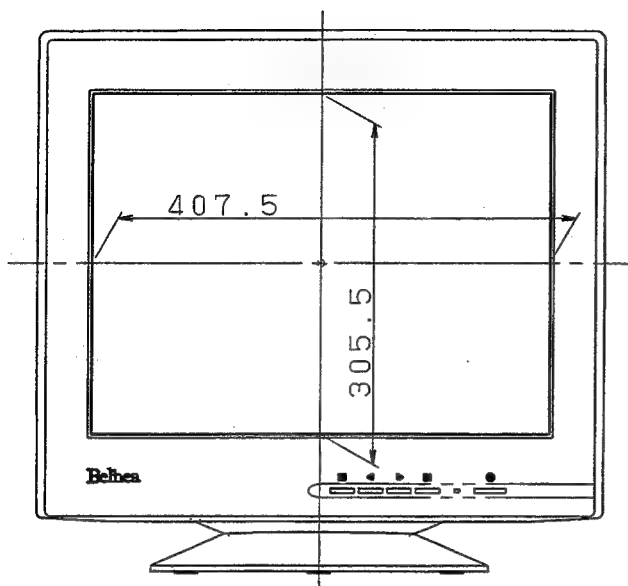
Length : 1.5 meter (4.92 feet)

## 11. RELIABILITY

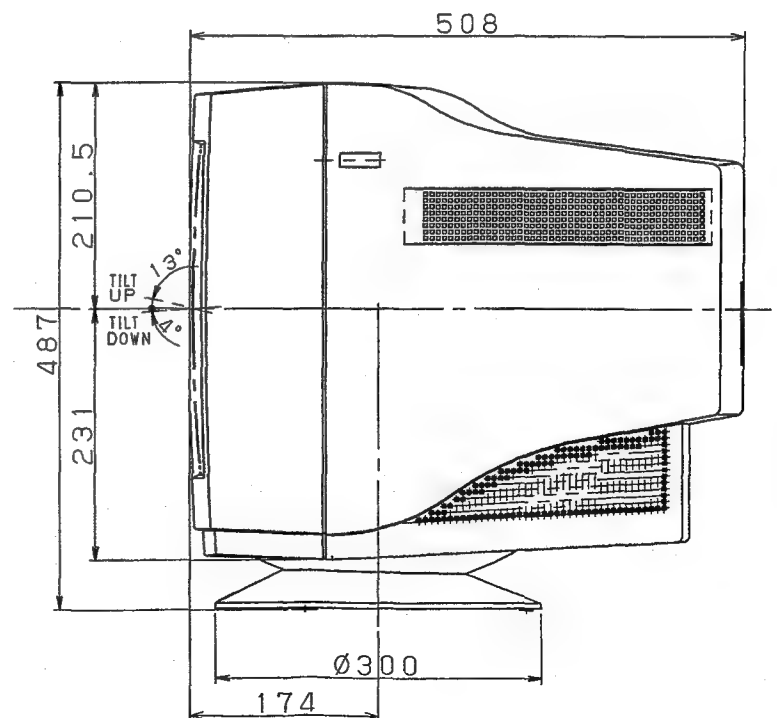
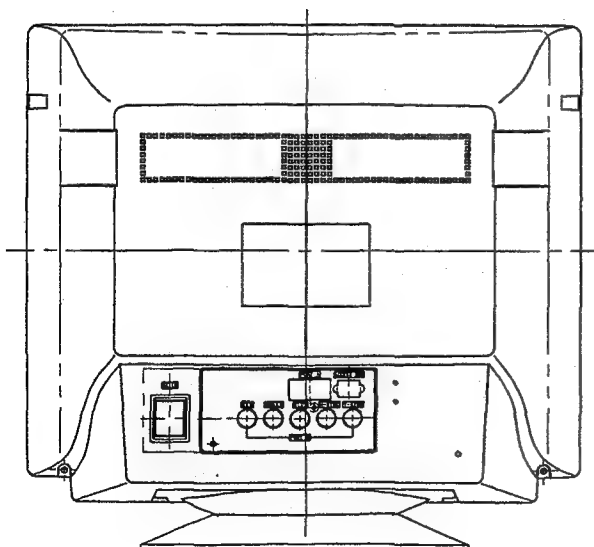
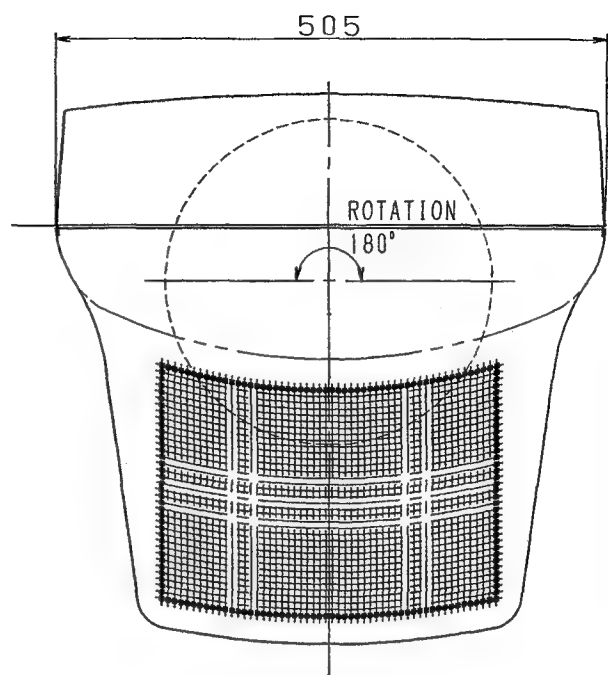
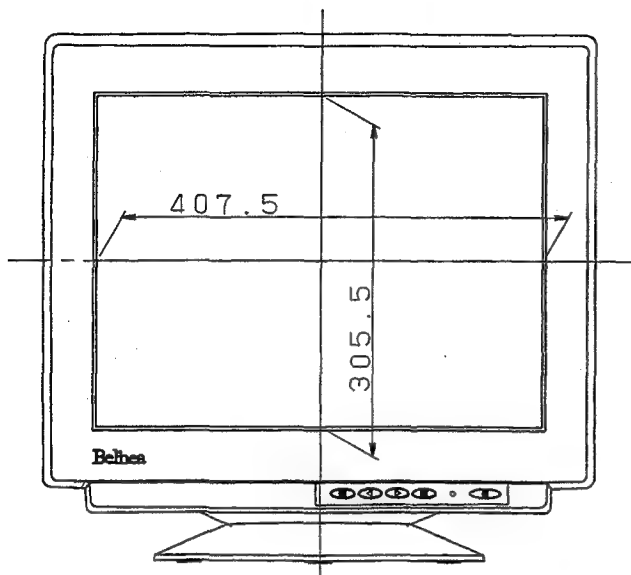
>55,000hrs (demonstrated MTBF)

## DIMENSIONS

**MODEL : Belhea 10 80 10 (TX-D2171XD-E)**



**MODEL : Belheia 10 80 10 (M-2171XD-E)**  
**Belheia 10 80 15 (M-1F71XD-ET)**



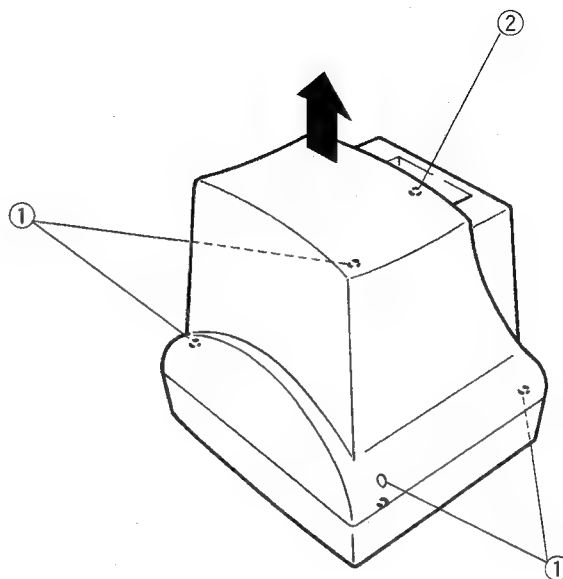
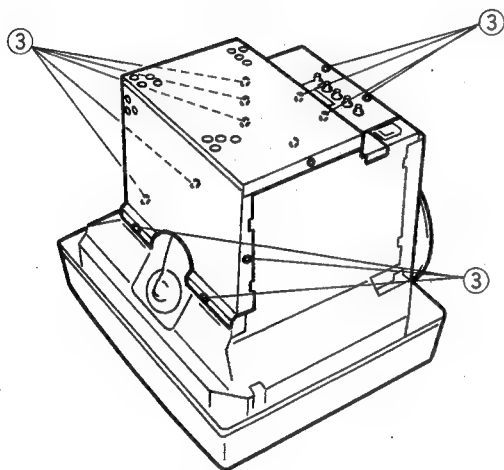
## DISASSEMBLY INSTRUCTIONS

The illustrations of " DISASSEMBLY INSTRUCTIONS " are those of Model;Belinea 10 80 10(TX-D2171X-D-E)

### 1. Rear cover removal

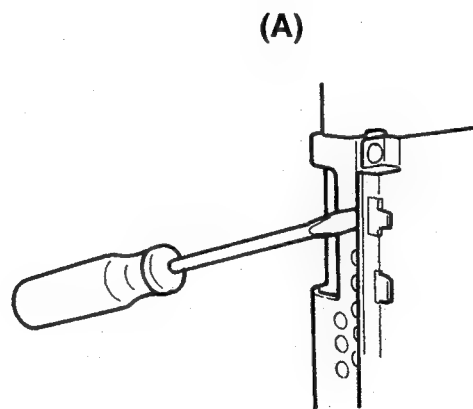
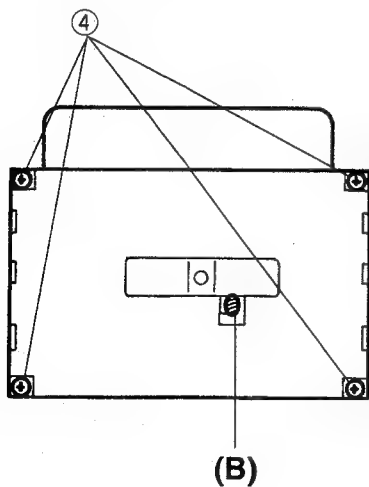
*Note: Spread a mat underneath to avoid damaging the CRT surface.*

- 1) Remove four large screws ① and small screw ② from the rear cover.
- 2) Remove the cover.
- 3) Remove 13 screws ③ from the shield case.
- 4) Remove the shield case.



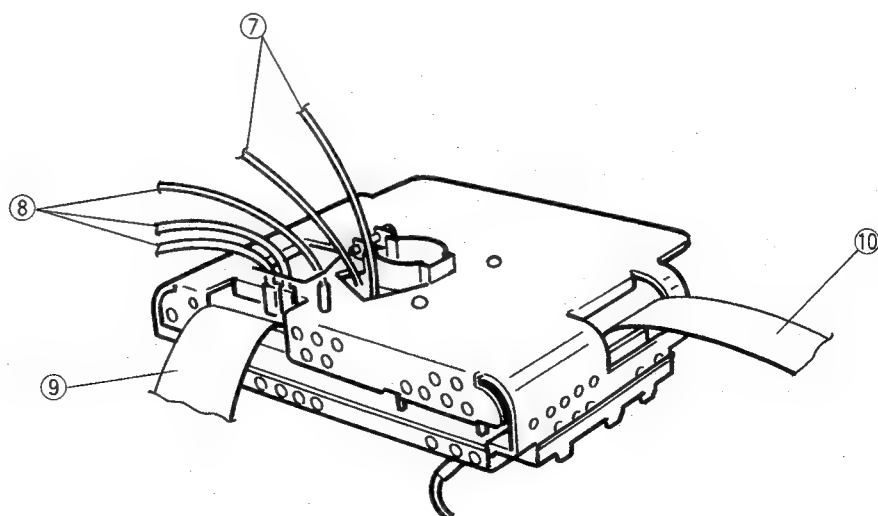
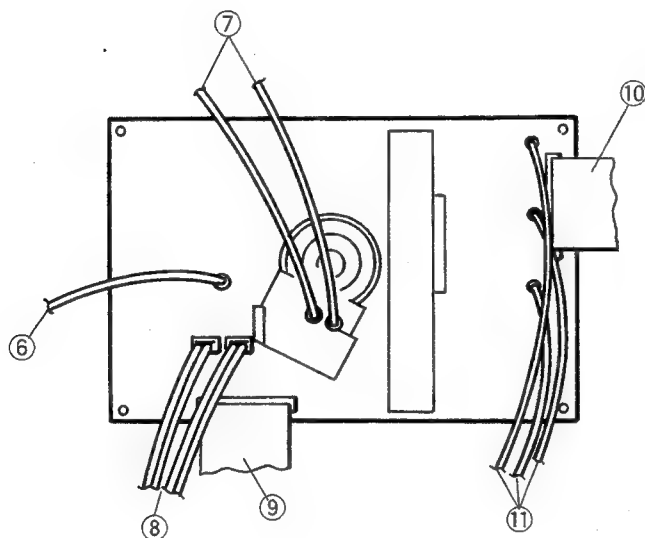
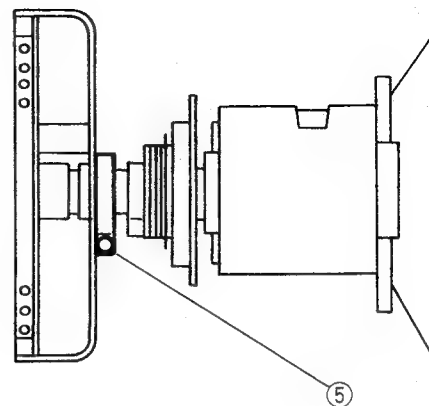
### 2. Video PCB removal

- 1) Remove four screws ④ securing the shield cover.
- 2) Desolder (B) and Remove the shield cover (A).



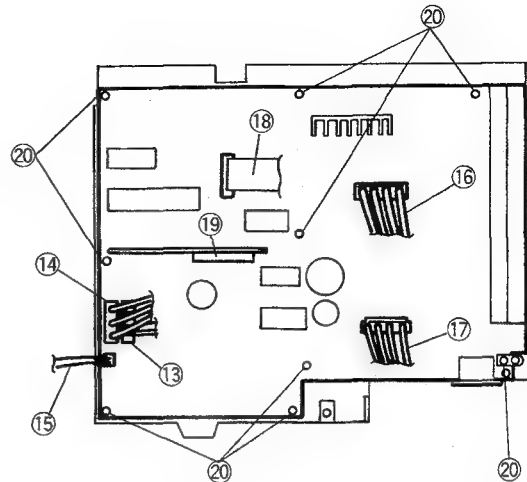


- 3) Loosen the screw ⑤ securing the CRT neck and the shield case.
- 4) Remove the PCB block from the CRT.
- 5) Remove the N651B connector ⑥.
- 6) Remove two focus leads ⑦.
- 7) Remove ground connector ⑧ (N106, N107A) connected to the PCB.
- 8) Remove N1010A connector ⑨.
- 9) Remove N1013A connector ⑩.
- 10) Remove RGB connector ⑪.
- 11) Remove the PCB from the shield case.



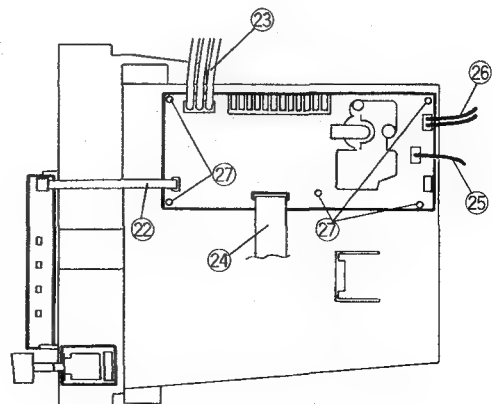
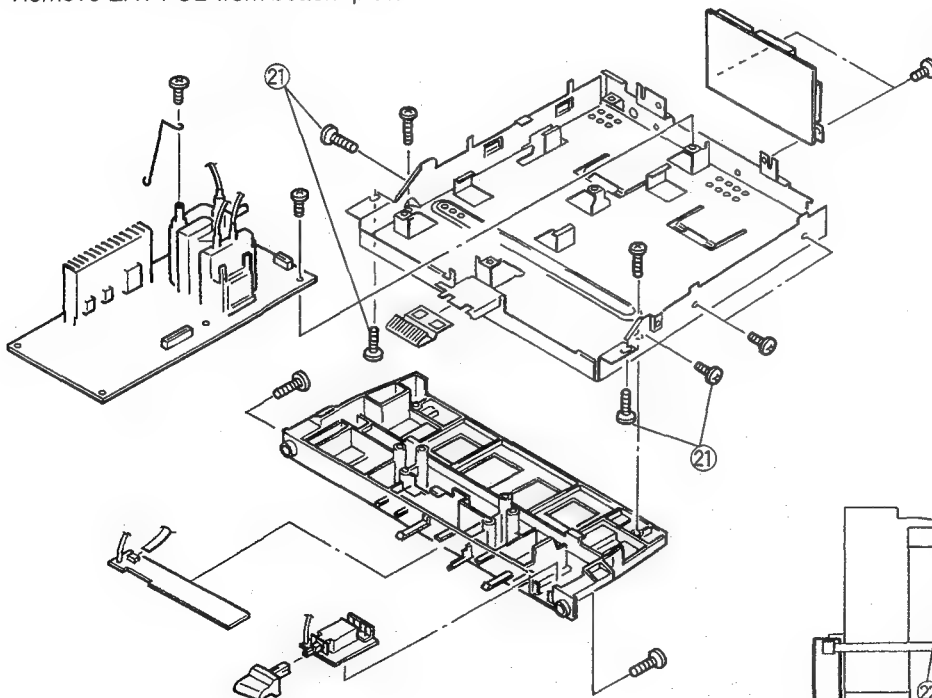
### 3. Main PCB Removal

- 1) Remove the connector ⑫ located bottom right.
- 2) Lift and pull out for main PCB block.
- 3) Remove the connector ⑬ N901 and ⑭ N902 of the degauss coil.
- 4) Remove the connector ⑮ N991 of the tilt coil.
- 5) Remove the connector ⑯ N510 of the DY.
- 6) Remove the connector ⑰ N802A of the power switch.
- 7) Remove the connector ⑱ N601A of the EHT PCB.
- 8) Remove the connector ⑲ N1013A of the video PCB.
- 9) Remove the fitting metal and the PCB from bottom plate.
- 10) Remove nine screws ⑳.



### 4. EHT PCB Removal

- 1) Remove 4 screws ㉑.
- 2) Remove the anode cap.
- 3) Remove the connector ㉒ N102B of the front switch.
- 4) Remove the connector ㉓ N12 of the radiator and pick up PCB.
- 5) Remove the connector ㉔ N601B of the main PCB.
- 6) Remove the connector ㉕ N651A of the video PCB.
- 7) Remove the connector ㉖ N1017B of the GND.
- 8) Remove 5 screws ㉗.
- 9) Remove EHT PCB from bottom plate.



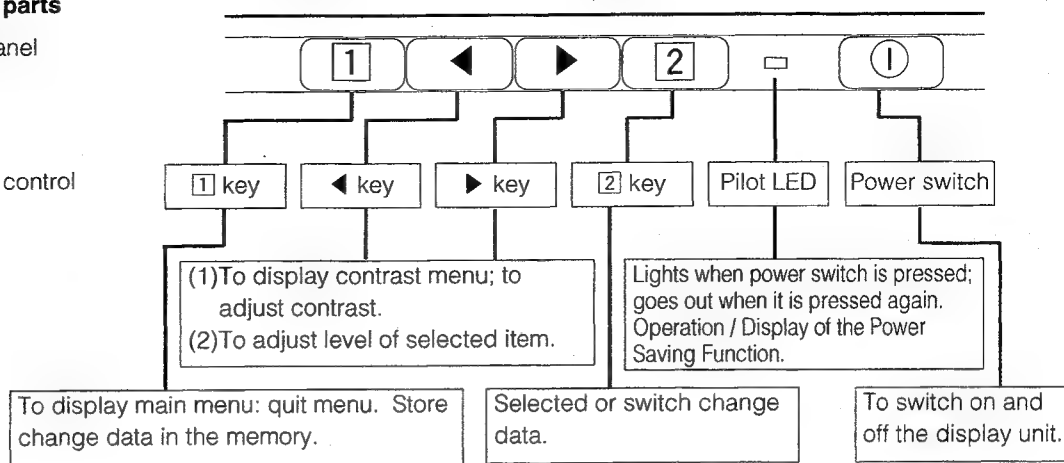
## CONTROL LOCATION

### Basic operation of parts

Control panel

Names of control

Functions



\* For a detailed description of the functions of the [1] key, ◀ key, ▶ key, and [2] key, refer to the next section onward.

### Examples of on-screen operation

#### A. Contrast adjustment

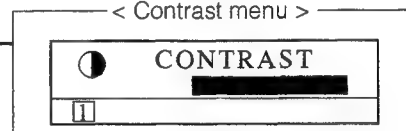
Display changes

Steps of operation

On-screen display changes



1. Display the contrast adjustment menu using the ◀ key or ▶ key.



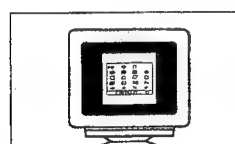
2. Set the desired state using the ◀ key or ▶ key. If the [1] key is pressed, the set data is stored in the memory and the menu screen is cleared.

#### B. H. size adjustment

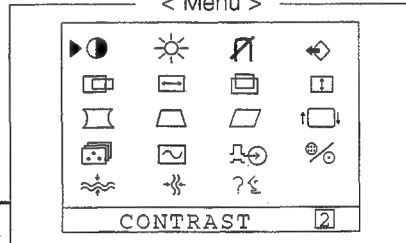
Display changes

Steps of operation

On-screen display changes



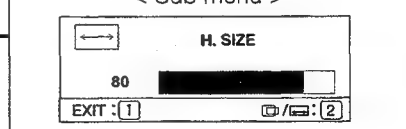
1. Call the main menu on the screen by pressing the [1] key.



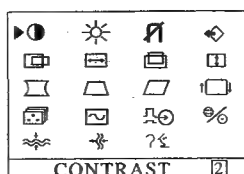
2. Move to cursor to H. SIZE using the ◀ key or ▶ key, then press the [2] key to select.



3. Set the desired state using the ◀ key or ▶ key. If the [1](EXIT) key is pressed, the set data is stored in the memory and the menu screen is cleared.



Main menu



CONTRAST	BRIGHTNESS	DEGAUS	RECALL
H.POSITION	H.SIZE	V.POSITION	V.SIZE
V.PINCUSHION	TRAPEZOID	PARALLELOGRAM	ROTATION
COLOR SELECT	DISPLAY FREQUENCY	VIDEO INPUT LEVEL	VIDEO INPUT SELECT
H.MOIRE	V.MOIRE	LANGUAGES	
CONTRAST [2]			

## CAUTION FOR ADJUSTMENT AND REPAIR

1. Degaussing is inevitably required at purity adjustment or convergence adjustment.
2. If you check or adjust electrical specification or function, more than 20 minutes burn-in is required.
3. Reforming of the lead wire is required after your repair work.
4. Prior to starting work, be sure to check that the input signal is at the specified timing and that the polarity is as specified in all modes.
5. Brightness control: After mounting the rear cover, brightness tends to decrease about  $5 \text{ cd/m}^2$  on a flat white field and about  $1 \text{ cm/m}^2$  on a white raster field. This should be taken into consideration.
6. Brightness stabilizing time: It takes about 20 to 50 seconds for the brightness to stabilize after turning the power off for 5 seconds (AC). Therefore, care should be taken to this.
7. Aging should be made in white raster of  $30 \sim 50 \text{ cd/m}^2$  and raster size,  $402 \times 301 \text{ mm}$  before adjusting the ITC.
8. Set the CONTRAST to MAX and BRIGHTNESS to CENTER using the O.S.D.

## CAUTION FOR SERVICING

When servicing or replacing the CRT, high voltage sometimes remains on the anode. So, completely discharge high voltage before servicing or replacing the CRT so as to prevent a shock to the service person.

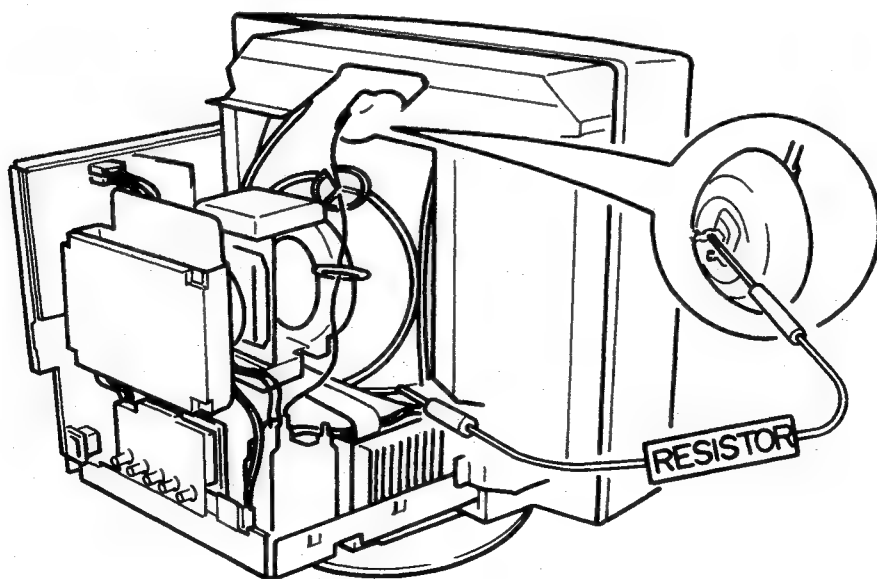
### CRT Anode Discharge

1. When you check the CRT anode or replace the CRT, discharge the CRT anode to the external conductive coating (aquadag) of CRT, especially when checked right after power turn-off.
2. Ground one end of a jumper wire which has a resistor ( $30 \text{ kV} < \text{resisting pressure } 100 \text{ M}\Omega$ ) and connect the other point to the CRT anode.

**Note:** Grounding must be done first.

This model has a section that does not share a common ground with the power supply section. The different sections are referred to as the HOT section and the COLD section in the precautions below.

1. Do not touch the HOT section and the COLD section at the same time. You may be hit by an electric shock.
2. Do not short the HOT section to the COLD section. This could blow the fuse or damage parts.
3. Never measure the HOT section and the COLD section at the same time when using tools such as oscilloscopes or multimeters.
4. Always unplug the unit before beginning any operation such as removing the chassis.



# ADJUSTMENT AND CHECK PROCEDURE

## INTRODUCTION

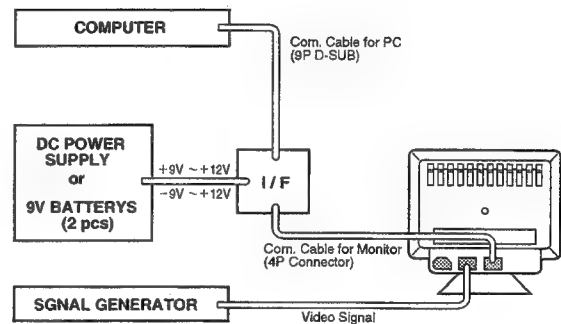
- This monitor is controlled by a microcomputer. With the exception of purity/convergence/focus all is digitally adjusted. Therefore a computer, the dedicated control software, the dedicated interface, a 9~12 V power supply, and a signal generator are required servicing.

## TOOLS REQUIRED

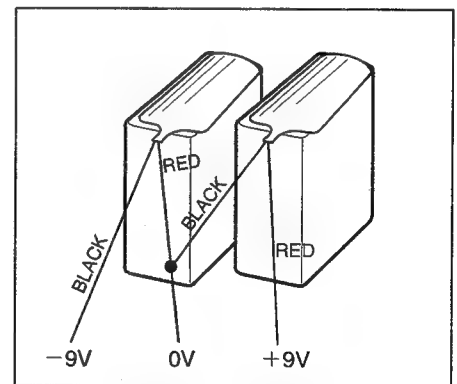
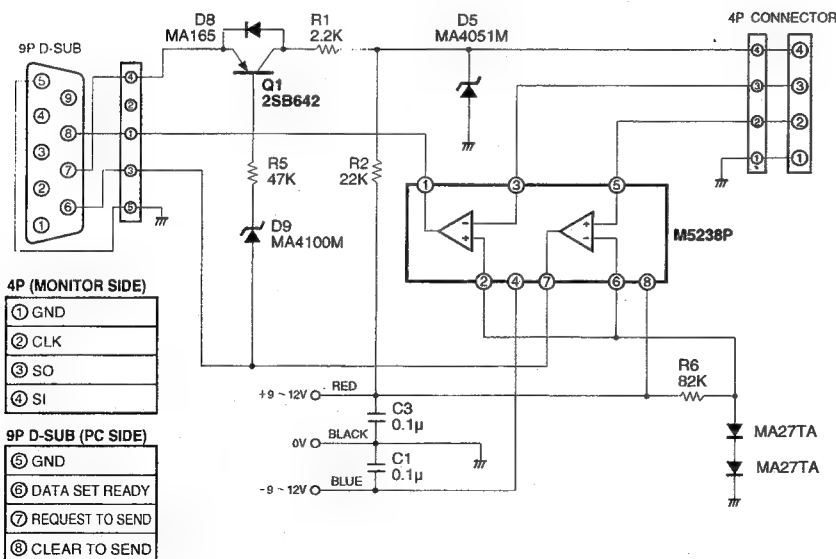
- Computer**  
The control software is IBM PC compatible only. Therefore, it is not compatible with any other operating systems. For further information please contact our sales office.
- Control Software**  
The GV3 chassis can only use adjustment program disk for this model. No other program can access the EEPROM on the monitor. For further information please contact our sales office.

- Interface**  
The interface is dedicated to work only with the control software and the HV and GV chassis. There are no substitutes for this interface. For further information please contact our sales office.
- Power Supply**  
A DC 9~12 V (+9~12 V/-9~12 V) power supply is required for operating the interface.
- Signal Generator**  
It is necessary for you to use a signal generator which operates on fh 115 kHz, fv 160 Hz, and fc 250 MHz bands.

## INTERFACE CONNECTION



## INTERFACE SCHEMATIC DIAGRAM



BATTERY CONNECTION

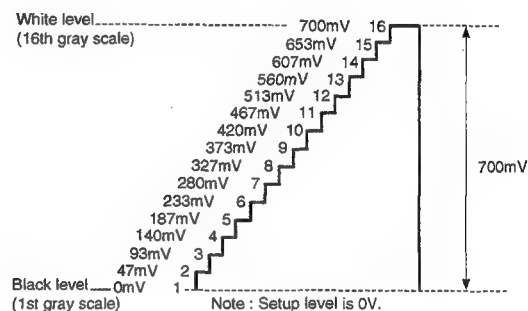
## OTHER TOOLS

- Oscilloscope (dual trace)
- Scope probe – Attenuation: 100:1  
Attenuation: 10:1
- Digital Voltmeter – Range: 0 to 1000 V DC  
Accuracy: 0.1 %
- TV color Analyzer II – that reads luminance and chromaticity X and Y coordinates.
- Digital High Voltmeter
- AC power supply – Output voltage : 0 to 300 V
- Degaussing coil
- Convergence meter
- Scale
- Double-faced scale
- Microscope – Scale factor: 50
- White racquer (Paint)

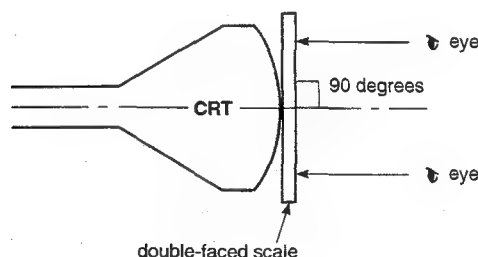
## STANDARD CONDITION OF ADJUSTMENT PROCEDURE

- Signal timing : Standard timing 1600 x 1200  
(See page 5)
- Display pattern : White, full "H" character
- Signal level : V/H: TTL level video: 700 mV
- Input source : AC 120 V, 60 Hz
- Ambient temperature : Room temperature
- Warm-up time : More than 30 minutes
- Brightness control : Center
- Contrast control : Max.
- Magnetic field : Vertical: 40  $\mu$ T  
Horizontal: 0  $\mu$ T
- Signal cable : Attached

Video input signal from PC.



- Use a Helmholtz device to adjust an unit with no horizontal magnetic field and a vertical field of 40  $\mu$ T. Inspect the unit under the same conditions.
- The ambient illuminance must be 200 lux.
- Use an external degaussing coil any time the DEGAUSS switch does not remove color shading.
- To check the image width, height, linearity and distortion, proceed as below.



Measure level with respect to tube axis.



# ADJUSTMENT SOFTWARE

## 1. Software operating procedure

- A) Remove the rear cover of the monitor.
- B) Power on the computer and monitor.
- C) Connect the Communication cable for monitor adjustment.
- D) Insert the adjustment disk into the drive.
- E) At the A:> on the DOS prompt type "VSR", then press [ENTER].
- F) Refer to the adjustment procedures.

## 2. Adjustment Program

### Main Menu of Adjustment Program

<<TX-D2171 ADJUST PROGRAM MAIN MENU>> (e: exit) <Ver 6.0>		
1) Initial CHECK	6) Information	
2) OSC DATA SET	7) Preset Editor	
3) VSR	8) ADJ VIDEO 1.0Vpp	
4) VIDEO	9) COLOR ADJUST	
5) EEPROM	10) DAF ADJUST	

### Description of Function of Each Menu

#### 1) Initial check

- The communication port is changed over from DDC use to servicing use.  
Normally, this port is set for DDC use. When this item is selected, switched to the service use by transmitted for switching command. When this transmission is successful, the computer screen is cleared and a message of "HIT RETURN KEY >" is displayed.
- When the RETURN key is pressed at this stage, chassis discrimination is carried out. If there is OK, the main menu is recovered and various controls from computer become possible. If the connected monitor is other than GV3 chassis, a message of "This is not GV3 chassis" is displayed and execution is stopped.
- If this menu is selected and a communication error occurs, examine communication cable connections and check the power supply for the communication cable and monitors.
- This port is set for DDC use after the monitor's power switch has been turned on. Therefore, transmission of this command is needed prior to adjustments.

#### 2) OSC data set

This is a menu intended to set up automatic VCO adjusting data in the PLL for horizontal and vertical oscillation, incorporated in the SSP (Super Signal Processor). When this item is selected, a command for data setting is transmitted to the monitor. It takes about 5 seconds to set up data. During this period, monitor screen is cleared. Upon completion of setting, a message of "HIT RETURN KEY >" is displayed in the computer screen.

#### 3) VSR (Variable Scan Rate)

To achieve stabilized operation and high performance throughout the working frequency range, the frequency band is split into 4 positions. In each position, adjustments for major items are performed and the result is saved in the EEPROM as interpolation data. In this model, the following frequencies are specified for VSR adjustments. With frequencies other than those specified below, adjustment is disabled.

Signal name	Adjust mode	Horizontal frequency	Vertical frequency
GV3-1	INTP0	29.5kHz	48.0Hz
GV3-2	INTP1	54.0kHz	77.0Hz
GV3-3	INTP2	82.5kHz	126.0Hz
GV3-5	INTP3	115.5kHz	165.0Hz

#### 4) Video

This is a menu for CRT cut-off and brightness adjustments. Focus adjustment is also effected in this menu.

**5) EEPROM**

This is a menu used to control EEPROM data in the monitor. Data transfer from monitor to PC, or from PC to monitor, is also possible.

**6) Information**

This is not a screen for adjustments, but a menu used to display monitor's operating conditions, such as horizontal and vertical frequencies memory address, etc.

**7) Preset editor**

This is an adjustment screen of the factory preset mode. The result of adjustments is registered in the address of EEPROM to be exclusively used for factory preset.

**8) ADJ video 1.0Vpp**

This is a menu intended to adjust the brightness when the video input level is set at "1.0Vpp" in the OSD. This adjustment requires a video signal of 1.0Vpp.

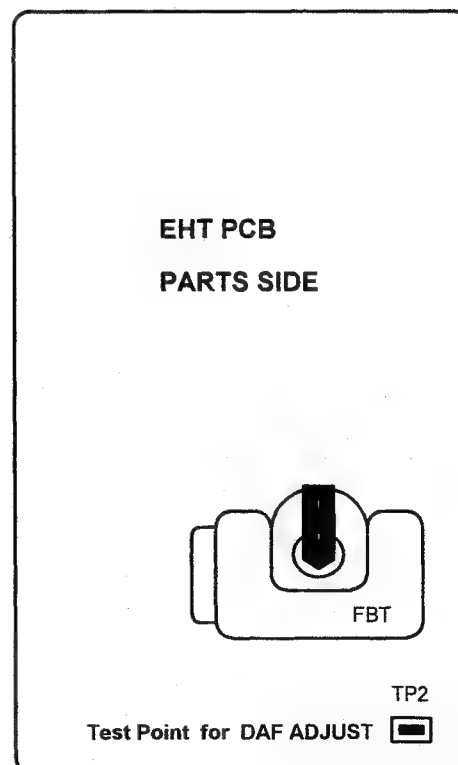
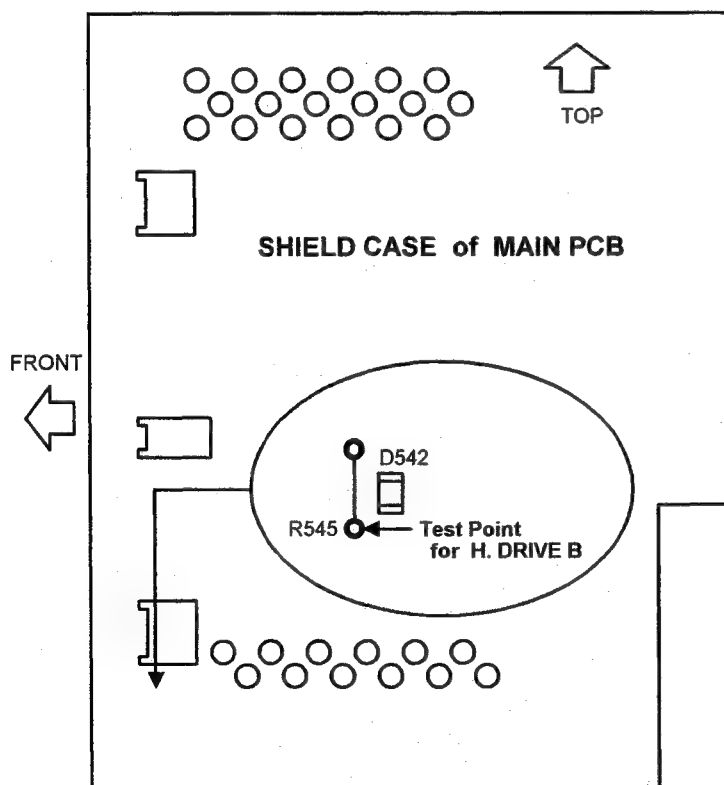
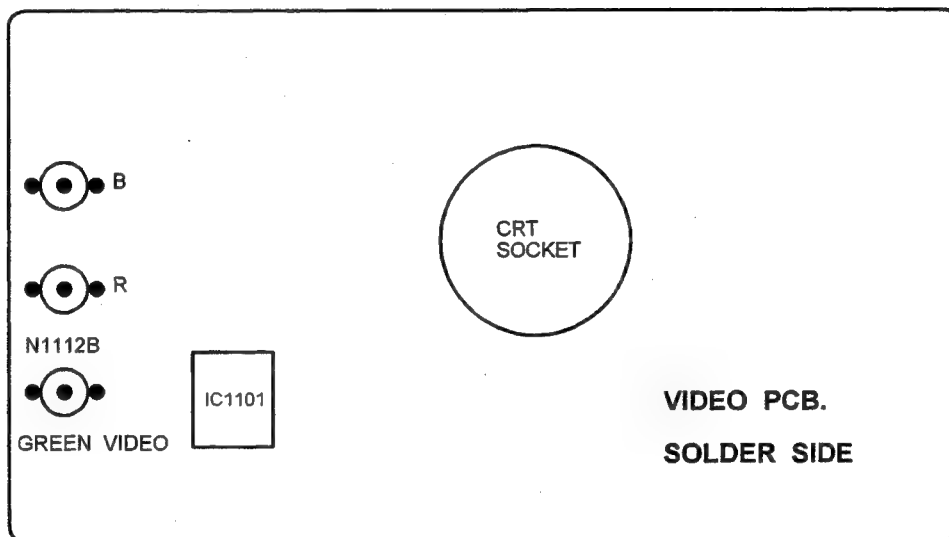
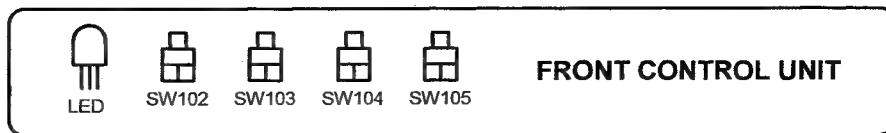
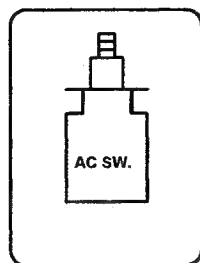
**9) Color adjust**

This monitor enables three types of color temperature setting. In this case, adjustment of 9300k only is performed with Menu (4), and then automatic setting of the two remaining 6500k and user color is made with this menu, based on the setting data.

**10) DAF adjust**

This is a menu used for the adjustment of parabolic wave forms for dynamic focusing.

## SERVICE ADJUSTMENT CONTROL LOCATION



**REQUIRED ADJUSTMENT PROCEDURE AFTER A PARTS IS REPLACED (✓ IS REQUIRED)**

REPLACED PARTS																
ADJUSTMENT ITEM	MAIN P.C.B.	VIDEO P.C.B.	SSP P.C.B.	EHT P.C.B.	CRT DY	IC1001 IC1101 IC1201 Q1021 Q1022 Q1023 Q1121 Q1122 Q1123 Q1221 Q1222 Q1223	IC1341 IC1342 IC351 Q1071 Q1075 Q1076 Q1171 Q1175 Q1176 Q1271 Q1275 Q1276	IC540	IC850 Q873 Q550 Q540 T542	Q604 Q673	T601	IC581	IC302	IC430		
A	DATA SETTING*	✓		✓												
B	H. DRIVE +B	✓		✓				✓								
C	OSC DATA SET	✓		✓												
E	H. CENTER	✓		✓		✓						✓				
F	VSR SETTING	✓		✓	✓				✓	✓	✓			✓		
G	FACTORY PRESET	✓		✓	✓				✓	✓	✓			✓		
H	DAF ADJUST	✓		✓	✓								✓			
I	FOCUS ADJUST	✓		✓	✓						✓		✓			
J	CUT-OFF & BRIGHTNESS	✓	✓	✓	✓		✓			✓	✓					
K	COLOR DATA SETTING	✓	✓	✓	✓					✓	✓					
L	VIDEO 1.0V ADJUST	✓	✓	✓	✓		✓			✓	✓					
M	DATA SAVING	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		
	PURITY & CONVERGENCE				✓											
	SCREEN CHECK	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		

**\* DATA SETTING : Do not load standard data except when Main PCB and SSP Card are replaced.**

## ADJUSTMENT PROCEDURE

Note 1 : Check to be sure that the program disk name is **TXD2171** before making necessary adjustment.

Note 2 : Unless otherwise specified, the monitor state is as given at right.

Note 3 : The underlined places indicate the adjustment items on the screen of the PC.

### 1. Description of Adjustment Method

Program Menu Item		◆ Test Meter ↓ Test Point □ Páttern	JOB CODE	Input Signal	Operation	Adjusting Value
A	<b>STANDARD DATA SETTING</b>		A1	Mode-1	Turn ON the power switch of the monitor.	
			A2		Set the cell to <u>1) Initial Check</u> at the main menu and press [↵], then press [↵] to return to main menu.	
	4) EEPROM		A3		Set the cell to <u>4) EEPROM</u> at the main menu and press [↵].	
	1) Load data from FILE		A4		Set the cell to the menu at left and press [↵].	
			A5		A massage <b>FILE → EEPROM FILE NAME (q or Q escape) [ ] :</b> is displayed. So key in the DACDATA.DAT (when using the standard data) and press [↵].	
			A6		Turn OFF the power switch of the monitor, then turn ON. (To make reset)	
			AE		Set the cell to <u>1) Initial Check</u> at the main menu and press [↵], then press [↵] to return to main menu.	
<b>Do not load standard data except when Main P.C.B. and SSP Card are replaced.</b>						
B	<b>H. DRIVE +B</b> 3) VSR	◆ Digital voltmeter ↓ R545 ~ GND Refer to page 22 for the test point. □ Crosshatch	B1		Set the cell to the menu at left and press [↵].	
			B2		Set the cell to the adjusting mode <u>INTP [0]</u> and press [↵].	
			B3	GV3-1	Check that the input signal to the monitor is [fH 29.5kHz] and [fV 48.0Hz] and press [↵].	
			B4		Set the cell to <u>H DRIVE B</u> and press [↵].	
			B5		Make the adjustment to the value shown at right by using [←] and [→].	24.0V ±0.3V
			B6		Register by press [↵] and [E] to return to menu of B2.	
			B7	GV3-2	Input signal [fH 54.0kHz] and [fV 77.0Hz]	23.0V ±0.3V
			B8		Select Adjusting mode <u>INTP [1]</u> , and repeat above (B4~B6) procedure.	
			B9	GV3-3	Input signal [fH 82.5kHz] and [fV 126.0Hz]	22.0V ±0.3V
			B10		Select Adjusting mode <u>INTP [2]</u> , and repeat above procedure.	
			B11	GV3-5	Input signal [fH 115.5kHz] and [fV 165.0Hz]	19.0V ±0.3V
			B12		Select Adjusting mode <u>INTP [3]</u> , and repeat above procedure.	
			BE		Press [E] to return to main menu.	

Program Menu Item		◆ Test Meter ↓ Test Point □ Pattern	JOB CODE	Input Signal	Operation	Adjusting Value
C	OSC DATA SET 2) OSC DATA SET	□ Crosshatch	C1	Mode-1	Check that the input signal to the monitor is [fH 93.8kHz] and [fV 75.0Hz]. Set the cell to the menu at left and press [↵]. The screen image is cleared, then press [↵] to return to main menu.	
	C2 CE					
D	FOCUS PRE ADJUST 4) VIDEO	□ G. Crosshatch	D1	Mode-1	Check that the input signal to the monitor is [fH 93.8kHz] and [fV 75.0Hz]. Set the cell to the menu at left and press [↵]. Set the cell to <u>G51</u> and press [↵]. Make the adjustment by using [←], [→] to screen optimum for the <b>Corner Vertical</b> line. Register by pressing [↵]. Set the cell to <u>G52</u> and press [↵]. Make the adjustment by using [←], [→] to screen optimum for the <b>Center Horizontal</b> line. Register by pressing [↵], then press [E] to return to main menu.	
			D2			
			D3			
			D4			
			D5			
			D6			
			D7			
			DE			
E	H. CENTER 3) VSR	□ RGB off (Sync only)	E1	GV3-1	Set the Brightness to MAX by using the OSD. Set the cell to the menu at left and press [↵]. Set the cell to the adjusting mode <u>INTP [0]</u> and press [↵]. Check that the input signal to the monitor is [fH 29.5kHz] and [fV 48.0Hz] and press [↵]. Set the cell to <u>H CENTER</u> and press [↵]. Make the adjustment to the value shown at right by using [←] and [→]. Register by pressing [↵] and [E] to return to menu of <b>E3</b> .	<div><div>A      A=B      B</div><div><div>Back raster</div></div></div> Set the raster to the center with respect to the bezel.
			E2			
			E3			
			E4			
			E5			
			E6			
			E7			
			E8			
			E9			
			E10			
			E11			
			E12			
			E13			
			FE			

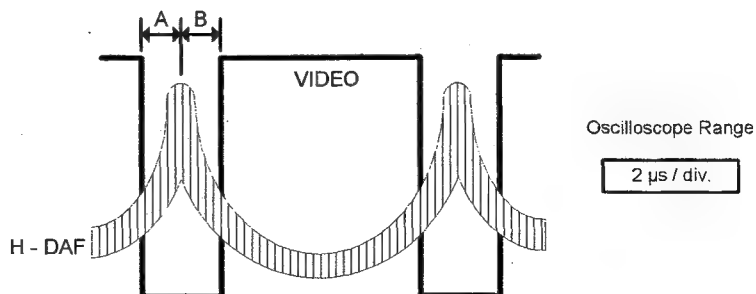


Program Menu Item		◆ Test Meter ↓ Test Point □ Pattern	JOB CODE	Input Signal	Operation	Adjusting Value
F	<b>VSR SETTING</b> 3) VSR	□ Crosshatch	F1		Set the cell to the menu at left and press [↵].	
			F2		Set the cell to the adjusting mode <u>INTP [0]</u> and press [↵].	
			F3	GV3-1	Check that the input signal to the monitor is [fH 29.5kHz] and [fV 48.0Hz] and press [↵].	H : 380mm ±5 V : 285mm ±5
			F4		Set the cell to following items, press [↵] and make the adjustment to the value shown at right by using [←] and [→]. ① <u>H. SIZE</u> ④ <u>V. POSITION</u> ② <u>H. POSITION</u> ⑤ <u>V. PCC</u> ③ <u>V. SIZE(VSR)</u> ⑥ <u>V. LIN( S )</u>	H/V Posi : Center  V. PCC : V. LIN : Best point
			F5		Register by pressing [↵] at each item, and press [E] to return to menu of F2.	
			F6	GV3-2	Input signal [fH 54.0kHz] and [fV 77.0Hz]	
			F7		Select Adjusting mode <u>INTP [1]</u> , and repeat above (F4~F5) procedure.	
			F8	GV3-3	Input signal [fH 82.5kHz] and [fV 126.0Hz]	
			F9		Select Adjusting mode <u>INTP [2]</u> , and repeat above procedure.	
			F10	GV3-5	Input signal [fH 115.5kHz] and [fV 165.0Hz]	
			F11		Select Adjusting mode <u>INTP [3]</u> , and repeat above procedure.	
	FE		Press [E], to return to the main menu.			
G	<b>FACTORY PRESET</b> 5) Preset Editor	□ Crosshatch	G1		Set the cell to the menu at left and press [↵].	
			G2	Mode-1	Check that the input signal to the monitor is [fH 93.8kHz] and [fV 75.0Hz] and press [↵].	
			G3		Set the cell to following items, press [↵] and make the adjustment to the value shown at right by using [←] and [→]. ① <u>H. SIZE</u> ⑥ <u>V. PCC BARANCE</u> ② <u>H. POSITION</u> ⑦ <u>PARALLELOGRAM</u> ③ <u>V. SIZE</u> ⑧ <u>TRAPEZOID</u> ④ <u>V. POSITION</u> ⑨ <u>V. LIN( C )</u> ⑤ <u>V. PCC</u>	H : 380mm ±5 V : 285mm ±5  H/V Posi : Center  V. LIN(C): Best point
			G4		Register by pressing [↵] at each item, and press [E] to return to the sub menu, then press [Y] go to G5.	
			G5	Mode-2	Check that the input signal to the monitor is [fH 31.5kHz] and [fV 60.0Hz] and press [↵].	
			G6		Set the cell to following items, press [↵] and make the adjustment to the value shown at right by using [←] and [→]. ① <u>H. SIZE</u> ③ <u>V. SIZE</u> ② <u>H. POSITION</u> ④ <u>V. POSITION</u>	H : 380mm ±7 V : 285mm ±7
- To be continued -						

Program Menu Item		◆ Test Meter ↓ Test Point □ Pattern	JOB CODE	Input Signal	Operation	Adjusting Value
G	<b>FACTORY PRESET</b> 5) Preset Editor	□ Crosshatch	G7	Mode-3	Input signal [fH 46.9kHz] and [fV 75.0Hz] and repeat above (G2 - G4) procedure.	H : 380mm ±7 V : 285mm ±7
			G8	Mode-4	Input signal [fH 60.0kHz] and [fV 75.0Hz] and repeat above procedure.	H : 380mm ±7 V : 285mm ±7
			G9	Mode-5	Input signal [fH 68.7kHz] and [fV 75.0Hz] and repeat above procedure.	H : 380mm ±7 V : 285mm ±7
			G10	Mode-6	Input signal [fH 64.0kHz] and [fV 60.0Hz] and repeat above procedure.	H : 355mm ±7 V : 284mm ±7
			G11	Mode-7	Input signal [fH 80.0kHz] and [fV 75.0Hz] and repeat above procedure.	H : 355mm ±7 V : 284mm ±7
			G12	Mode-8	Input signal [fH 112.5kHz] and [fV 90.0Hz] and repeat above procedure.	H : 380mm ±7 V : 285mm ±7
			GE		Press [E] to return to the sub menu, then press [N] to return to the main menu.	
H	<b>DAF ADJUST</b> 10) DAF ADJUST  <u>Oscilloscope Range</u> 2μs/div.(for Horizontal)          2ms/div.(for Vertical)	□ White flat field ◆ Oscilloscope ↓ TP2~GND ↓ N1112B ~ GND 10:1 probe	H1	GV3-5	Set the cell to the menu at left and press [J].	C-D=410V          E-F=190V
			H2		Check that the input signal to the monitor is [fH 93.8kHz] and [fV 75.0Hz].	
			H3		Select the <u>H DAF PHASE</u> and press [J].	
			H4		Adjust as shown at below by using [←] and [→], and press [J] for registration. (Refer to <b>Fig. H4</b> for adjustment)	
			H5		Select the <u>H DAF GAIN</u> and press [J].	
			H6		Adjust as shown at right by using [←] and [→], and press [J] for registration. (Refer to <b>Fig. H6</b> on next page for adjustment)	
			H7		Select the <u>V DAF GAIN</u> and press [J].	
			H8		Adjust as shown at right by using [←] and [→], and press [J] for registration. (Refer to <b>Fig. H8</b> on next page for adjustment)	
			HE		Press [E] to return to main menu.	

**Fig. H4**

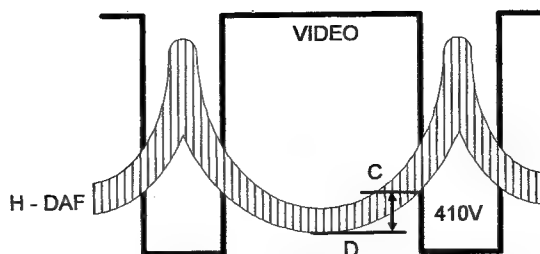
Set position to A=B



**Fig. H6**

Set voltage to C-D=410V

C : Closing VIDEO and H. DAF  
D : Bottom of H. DAF



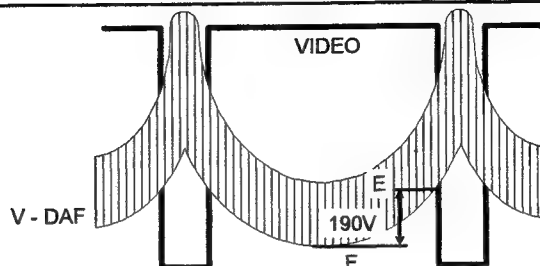
Oscilloscope Range

2 μs / div.

**Fig. H8**

Set voltage to E-F=170V

E : Closing VIDEO and V. DAF  
F : Bottom of V. DAF



Oscilloscope Range

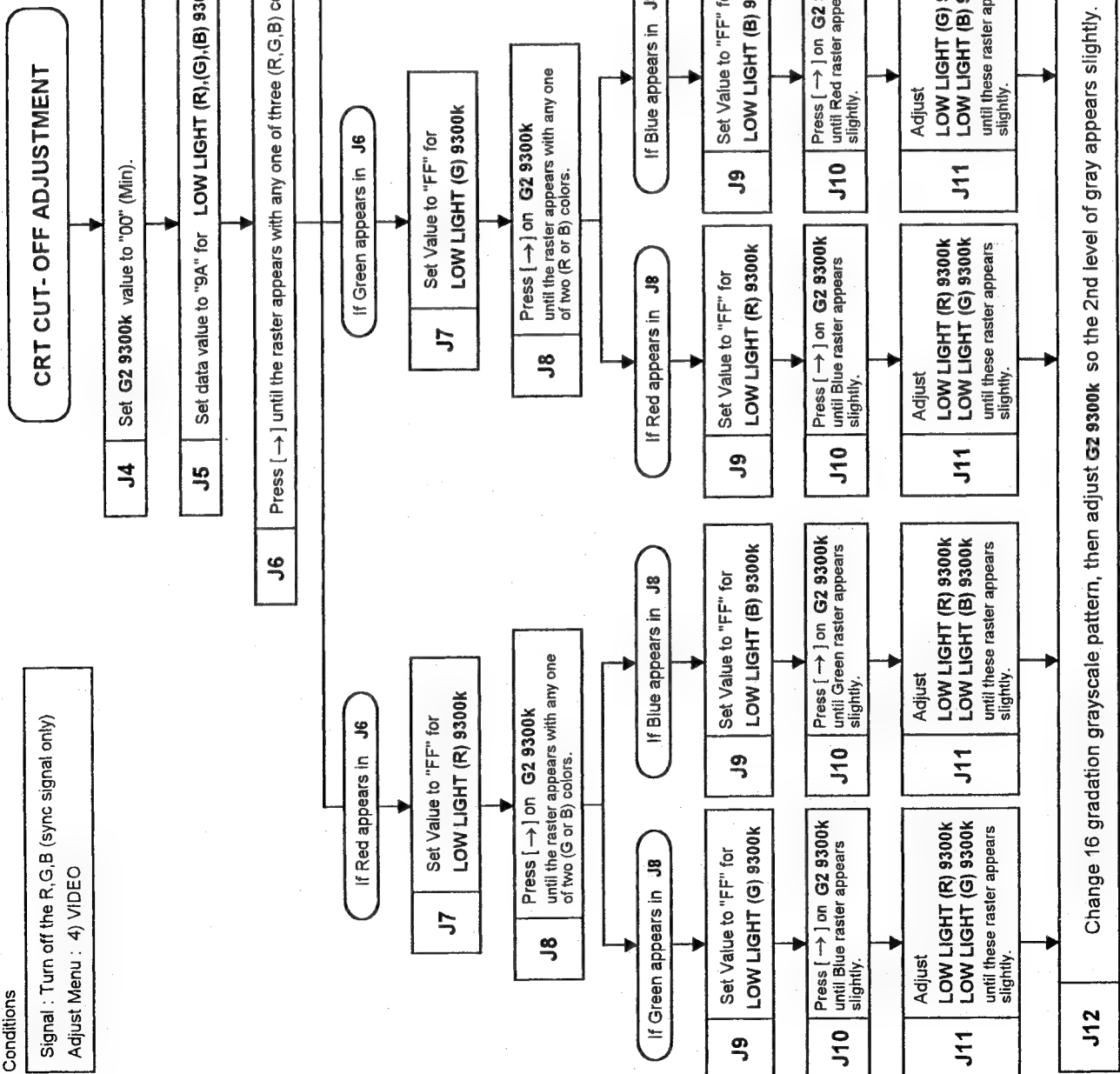
2 ms / div.

Program Menu Item	◆ Test Meter ↓ Test Point □ Pattern	JOB CODE	Input Signal	Operation	Adjusting Value
<b>FOCUS FINAL ADJUST</b> 4) VIDEO	□ G. Crosshatch		Mode-1	The same as item D for adjustment manner. Repeat D1~DE adjustment.	
<b>CRT CUT-OFF</b> 4) VIDEO	◆ TV Color Analyzer II □ RGB Off (Sync only)	J1 J2 J3 J4 ↓ J12	Mode-1	Set the Contrast to MAX, Brightness to Center and Color is 9300k by using the OSD. Check that the input signal to the monitor is [fH 93.8kHz], [fV 75.0Hz] and turn off the RGB signal. Set the cell to the menu at left and press [↵]. Make the adjustment <u>R,G and B Low Light 9300k</u> and <u>G2 9300K</u> by using [←], [→] to CRT cut-off. <b>Please refer to flow chart for CRT cut-off adjustment on page 30.</b>	
<b>BRIGHTNESS &amp; COLOR ADJUST</b>	□ White window (5cm×5cm at the center)	J13 J14  J15 J16		Change to the pattern at left. Move the cell to the following items and make the adjustment to the value shown at right by using [←] and [→], then [↵] for registration. <u>SUB CONT (R) 9300K</u> <u>SUB CONT (G) 9300K</u> <u>SUB CONT (B) 9300K</u> Set CONTRAST to MIN by using the OSD. Move the cell to the following items and make the adjustment to the value shown at right by using [←] and [→], then [↵] for registration. <u>LOW LIGHT (R) 9300k</u> <u>LOW LIGHT (G) 9300k</u> <u>LOW LIGHT (B) 9300k</u> <b>Adjust two colors only out of above (RGB) three as shown in J11 on page 30.</b>  <b>- To be continued -</b>	Y=105 cd/m <sup>2</sup> x=0.283 ±0.015 y=0.298 ±0.015          x=0.283 ±0.015 y=0.298 ±0.015

Program Menu Item		◆ Test Meter ↓ Test Point □ Pattern	JOB CODE	Input Signal	Operation	Adjusting Value
J	<b>BRIGHTNESS &amp; COLOR ADJUST</b>	□ White window (5cm×5cm at the center)	J17 J18	Mode-1	Set CONTRAST to MAX by using the OSD Check the value shown at right, then If out of range, to repeat <b>J13~J19</b> .	Y=105 cd/m <sup>2</sup> x=0.283 ±0.015 y=0.298 ±0.015
	<b>ABL</b> 4) VIDEO	□ White flat field (full window)	J19 J20 J21  JE		Set CONTRAST to MAX by using the OSD Change to the pattern at left. Move the cell to <u>ABL 9300k</u> and make the adjustment to the value shown at right by using [←] and [→], then [↵] for registration. Press [E] to return to main menu.	Y=97 cd/m <sup>2</sup>
K	<b>DATA SETTING</b> 9) COLOR ADJUST		K1 K2  KE		Set the cell to the menu at left and press [↵]. Press [Y] and [↵] for following messages. <b>Calculate COLOR 6550K data automatically . OK ? &gt;</b> <b>Calculate USER COLOR data automatically . OK ? &gt;</b> <b>Calculate ABL data automatically . OK ? &gt;</b> <b>finished . ( Hit return key )</b> Press [↵] to return to main menu.	
L	<b>1.0V ADJUST</b> 8) ADJ VIDEO 1.0Vp-p	◆ TV Color Analyzer II  □ White window (5cm×5cm at center) 1.0V p-p video	L1 L2 L3  L4  L5 LE	Mode-1	Set Input Video Level 1.0V using the OSD of the monitor. Set the cell to the menu at left and press [↵]. Change to the pattern and signal level at left. This messages will appear : <b>Please set video level at 1.0Vpp. then hit return key.</b> Check input signal, then press [↵]. <b>Please adjust CONTRAST (1.0Vpp) using cursor key.</b> Make the adjustment to the value shown at right by using [←] and [→]. Press [↵] for registration and return to the main menu.	Y=105 cd/m <sup>2</sup>
M	<b>DATA SAVING</b> 2) Save data to FILE		M1 M2		Set the cell to <u>4) EEPROM</u> at the main menu and press [↵]. Set the cell to the menu at left and press [↵]. A message <b>EEPROM -&gt; FILE NAME (q or Q escape) [] :</b> Use serial number as a file name ( EXAMPLE : FF7110001 = "F7110001.DAT" )	

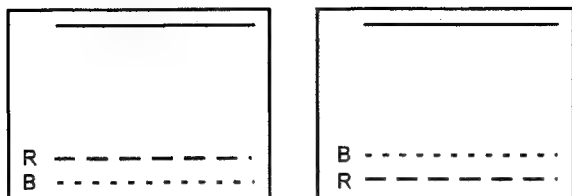
# Conditions

Signal : Turn off the R,G,B (sync signal only)  
Adjust Menu : 4) VIDEO

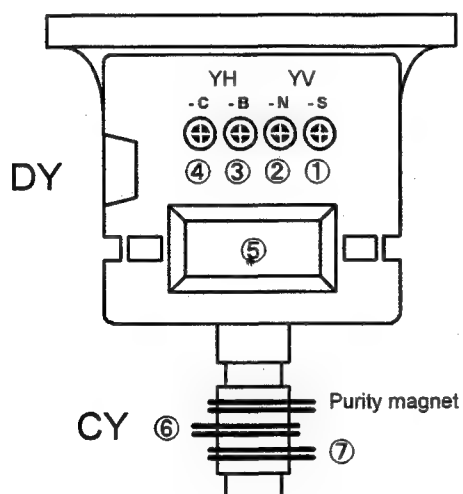
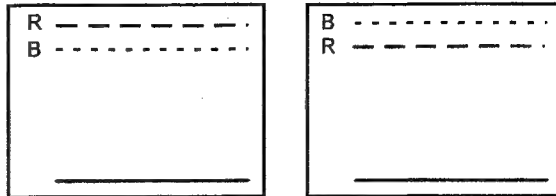


## 2. Adjustment Location for Purity and Convergence

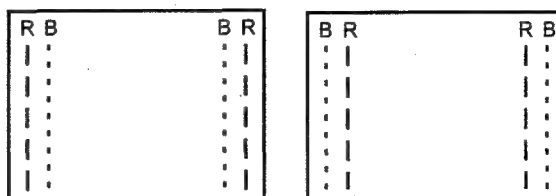
① Differential VR YV-S



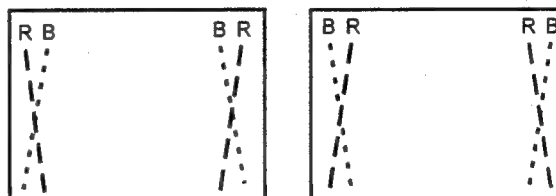
② Differential VR YV-N



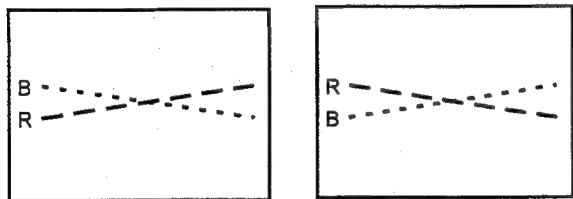
③ Differential VR YH-B



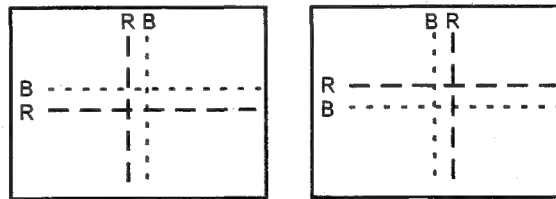
④ Differential VR YH-C



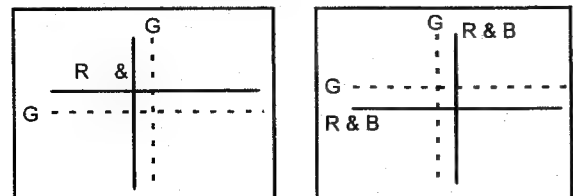
⑤ Differential Coil



⑥ Four-pole magnet

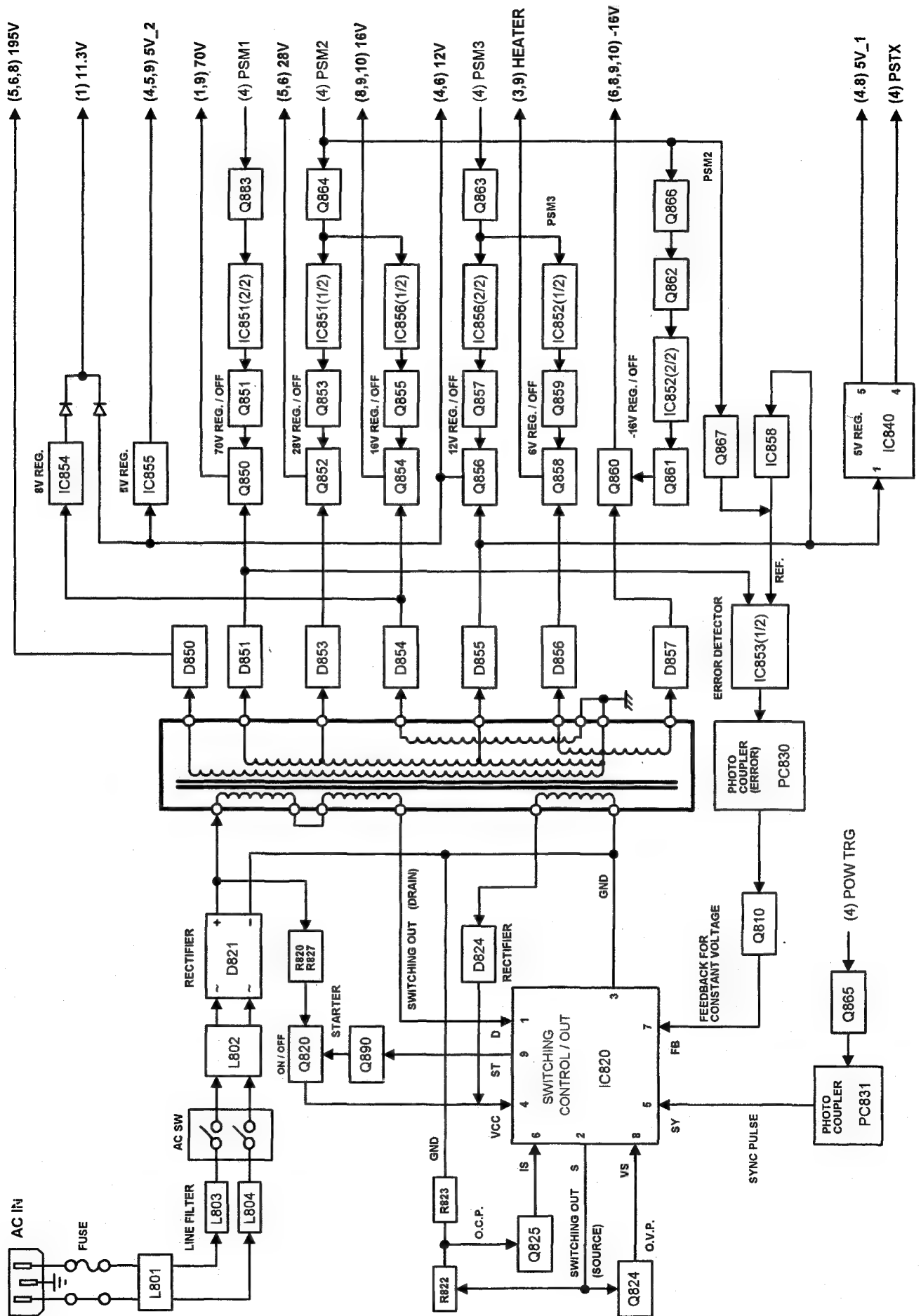


⑦ Six-pole magnet

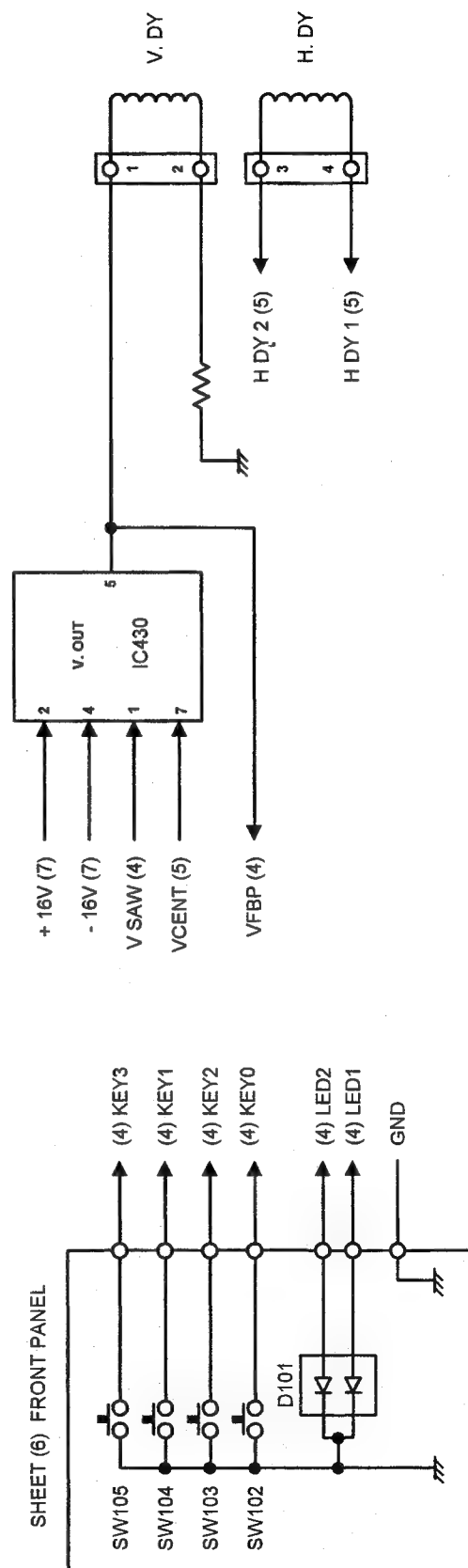
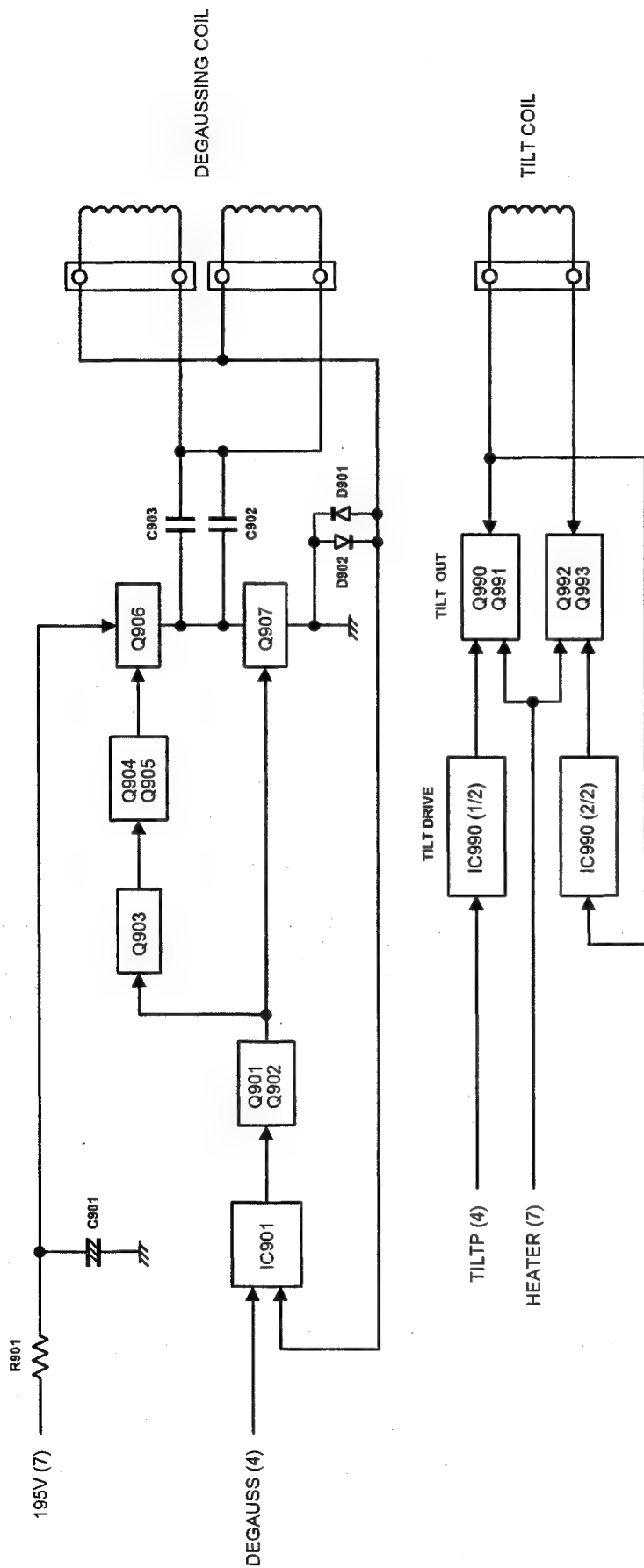




# SHEET (7) POWER SUPPLY



**SHEET (8) DEGAUSS**



## TECHNICAL INFORMATION FOR DDC

- It must be noted that this monitors is designed to be applicable to DDC1 communication the following points are different from ordinary monitors.

1. Use the signal cable, the which is furnished as an accessory (applicable to DDC1) only.
  2. When replacing a PCB on which ROM for DDC1 is mounted, data writing is required.
- In addition to the above, a computer applicable to WINDOWS and a 5V power supply unit are required.

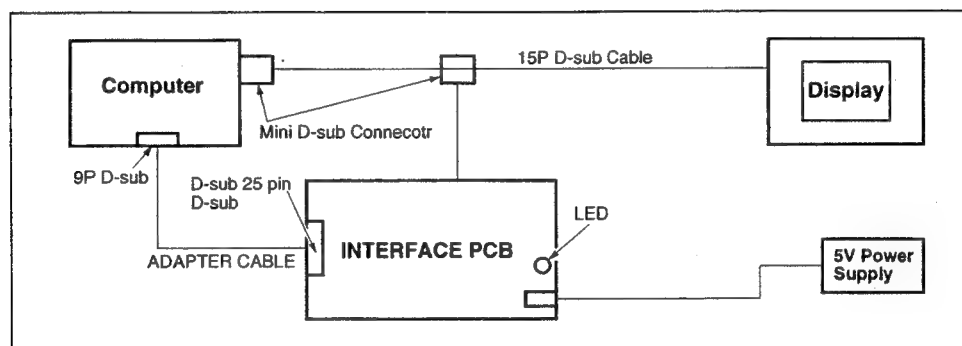
- DDC1 Data Read/write System

1. Communication jig

- (1) The composition of Communication jig

- ① Interface PCB.
    - ② Adapter cable (D-SUB 25P. → 9P)
    - ③ 15P D-SUB cable

- (2) Connection diagram for communication jig.



- (3) Procedure to turn on the power:

- ① Make connections as shown above.
    - ② Turn on the computer.
    - ③ Turn on the power supply of communication jig.
    - ④ Turn on the power supply of the MONITOR.

(Note) If the above-mentioned operation is normal, LED of the communication jig turns green after step (4).

If this LED is red, repeat the steps (3) and (4).

- (4) Confirmation of DDC mode

LED is mounted on the communication jig. According to its color, the DDC mode can be discriminated.

- |                        |                     |
|------------------------|---------------------|
| - When LED is green.   | DDC1 mode.          |
| - When LED is orange.  | DDC2B mode.         |
| - When LED is red.     | Transmission error. |
| - When LED is not lit. | Obsolete.           |

2. Preliminary arrangements for using DDC data read/write software

- (1) Copy DDC WRITE. EXE from floppy disk to hard disk drive (Name: \PanaTool Directory).

- (2) Register DDC data read/write software (DDCWRITE.EXE) in the Icon.

- ① Click the menu bar "Icon" of the program manager.
    - ② Select "register and group create" from the pull down menu.
    - ③ Select "group create."
    - ④ Name the group PanaTool and register the group.
    - ⑤ Repeat (1) and (2) again and select "Icon registration."
    - ⑥ Enter "DDC1/2B" for [Title] and "Hard disk drive name: \PanaTool\DDCWRITE. EXE" for [Command line]. Then select [OK]

3. How to use DDC data read/write software.

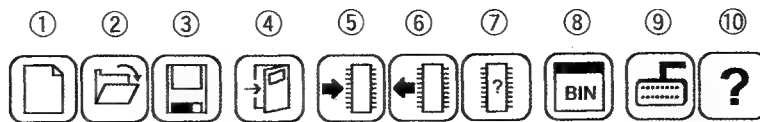
- (1) Start of DDC data read/write software.

Double-click the "DDC1/2B" Icon in the PanaTool group.

- (2) Meaning of a button displayed.

The tool bar indicates the nine icons shown below.

These icons are explained, from left to right :



- Icon ① : Initialization of screen display contents.  
 Icon ② : File is opened and displayed on the screen.  
 Icon ③ : Data are stored in a file.  
 Icon ④ : Finish the DDC data read/write software.  
 Icon ⑤ : Data displayed on the screen are written in EEPROM.  
 Icon ⑥ : Contents of EEPROM are displayed on the screen.  
 Icon ⑦ : Contents of EEPROM are compared with the data displayed on the screen.  
 Icon ⑧ : Check binary data by text format.  
 Icon ⑨ : Communication port setting.  
     Contents of setting : PORT → Using Communication port No.  
     Baud rate → 9600, Data → 8 bits, Parity → Nil, Stop → 1 bits  
 Icon ⑩ : Version information display.

- (3) Using the tool bar explained in (2) above, write data in EEPROM and make operations of reading, etc.  
 A pop-up window may be displayed on the way. In such a case, select a proper one according to the message.

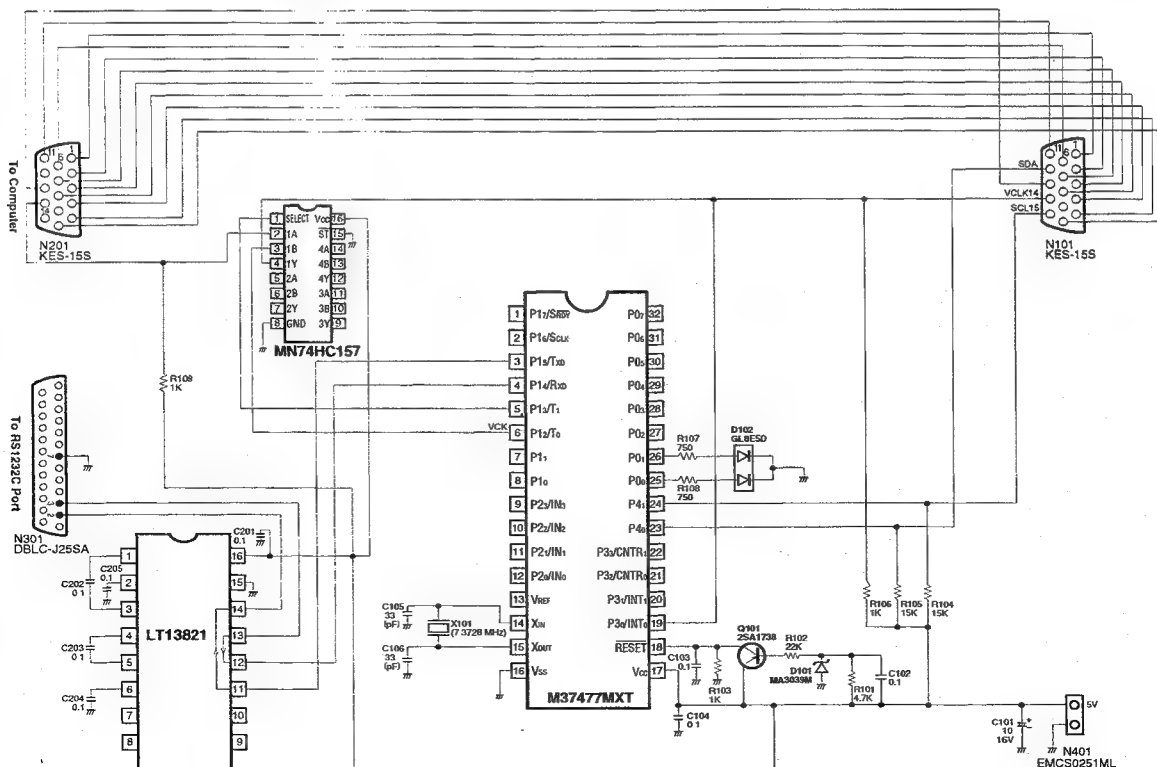
(Example 1) EEPROM data are displayed on the screen.

- ① Click the loon (6th from the left) in the tool bar, with the arrow pointing from the memory chip.
- ② Decided whether reading is started in DDC1 mode or DDC2B mode.
- ③ Select START.

(Example 2) Data displayed on the screen are written in EEPROM.

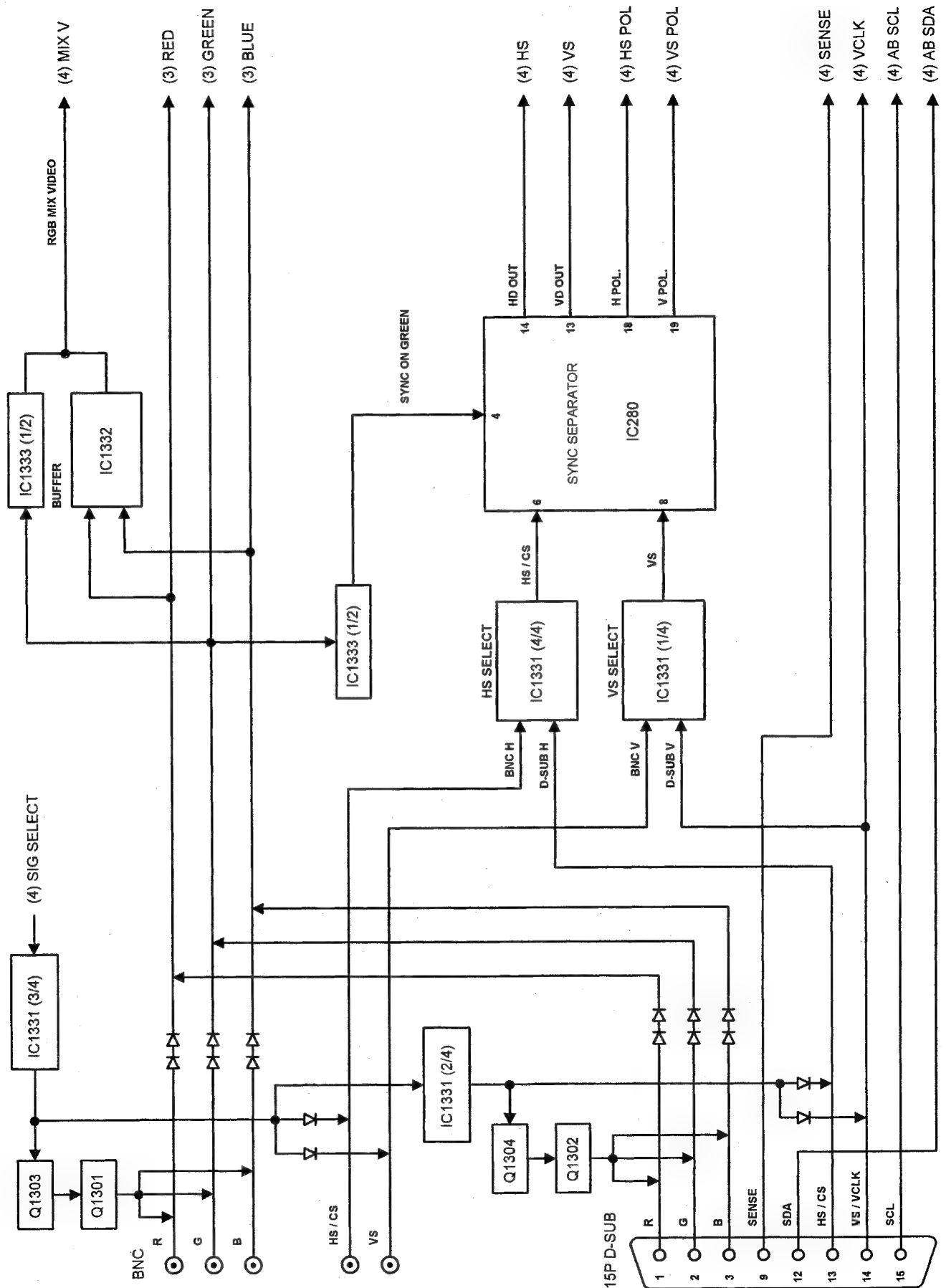
- ① Click the icon (5th from the left) in the tool bar, with the arrow pointing toward in the memory chip.
- ② Select START.

## SCHEMATIC DIAGRAM FOR INTERFACE

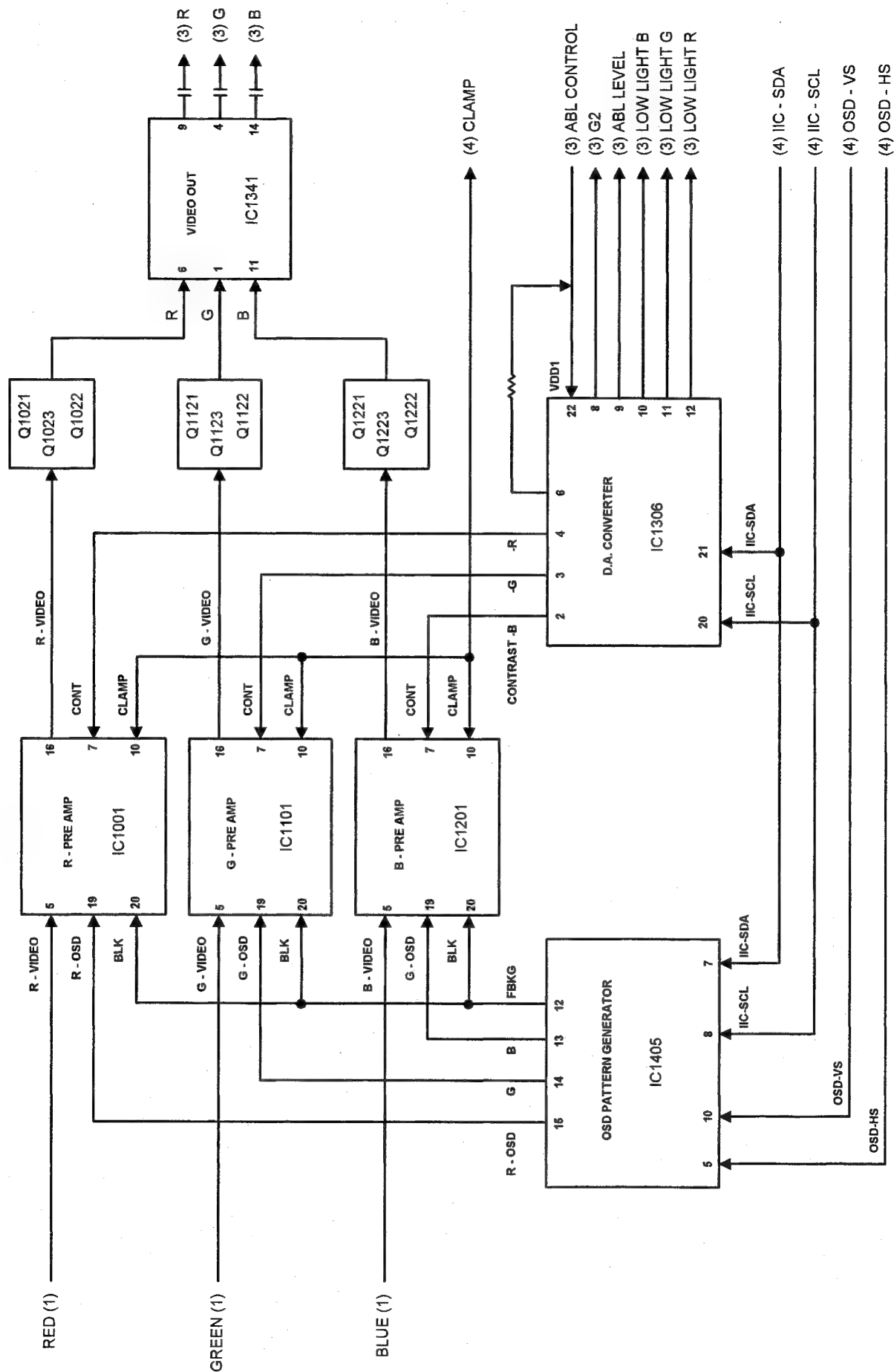


# BLOCK DIAGRAM

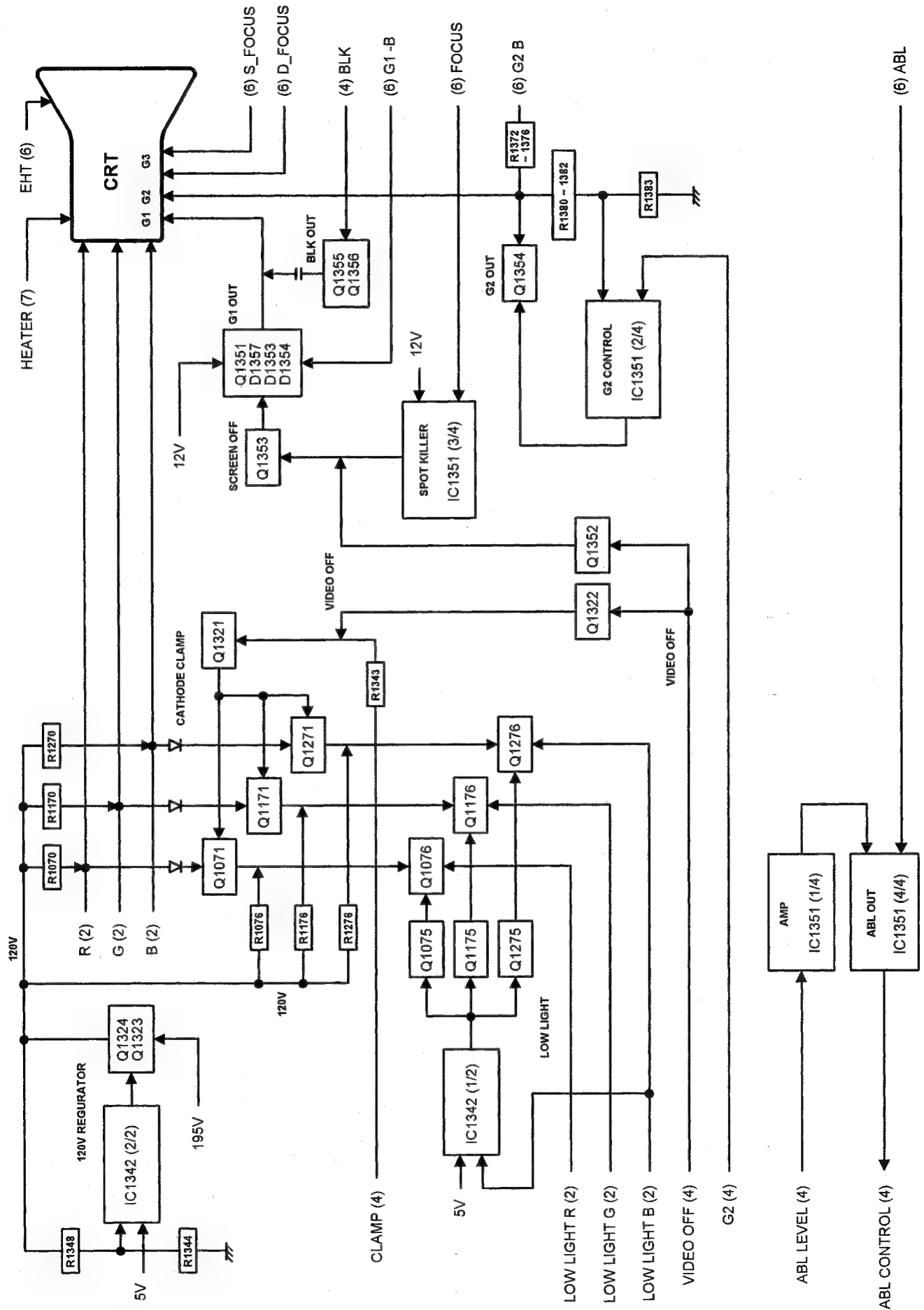
## SHEET (1) SIGNAL SELECT / SYNC SEPARATE



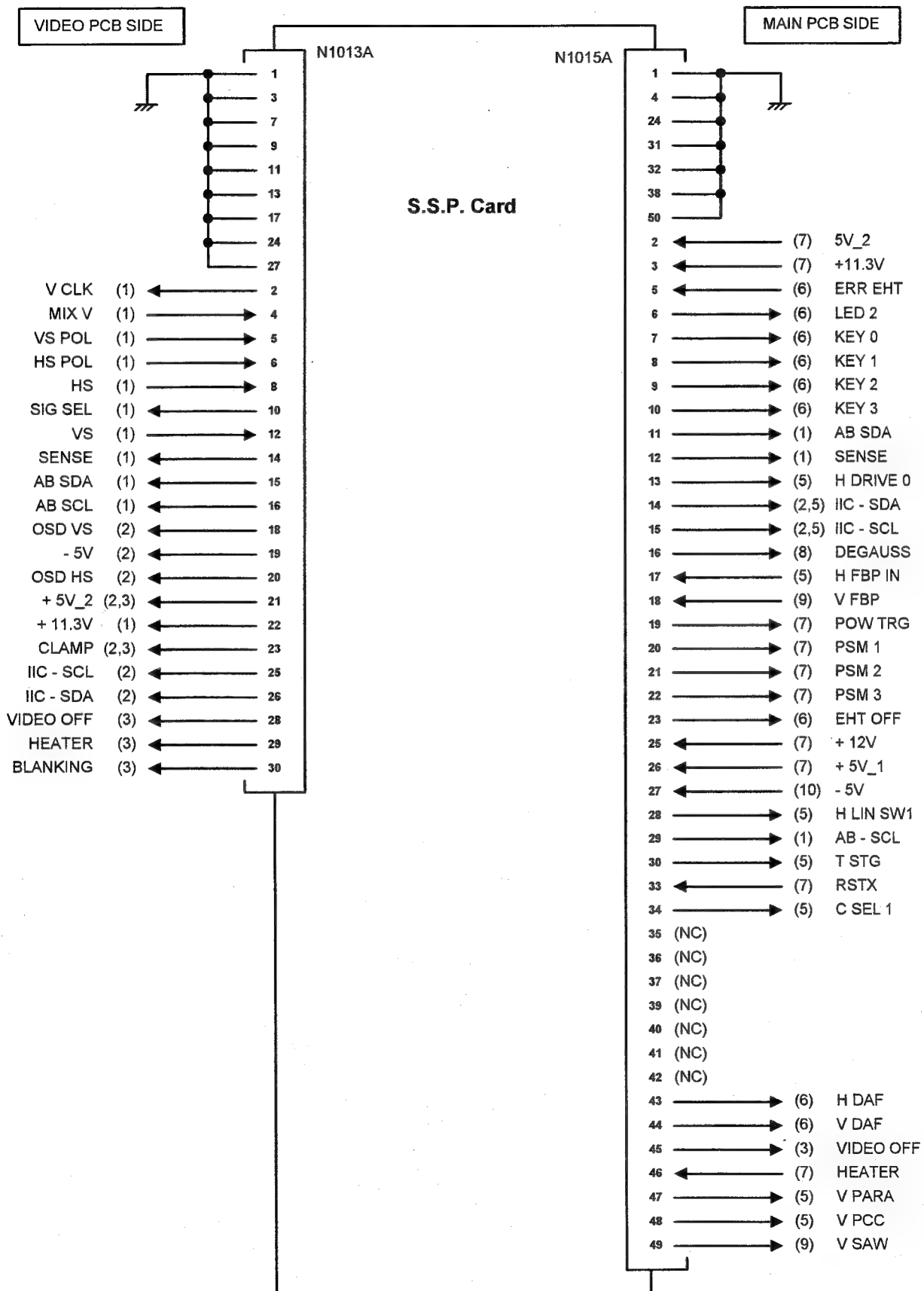
# SHEET (2) VIDEO AMP / O.S.D. GENERATOR / DAC FOR VIDEO



# SHEET (3) VIDEO OUT PUT



# SHEET (4) SUPER SIGNAL PROCESSOR



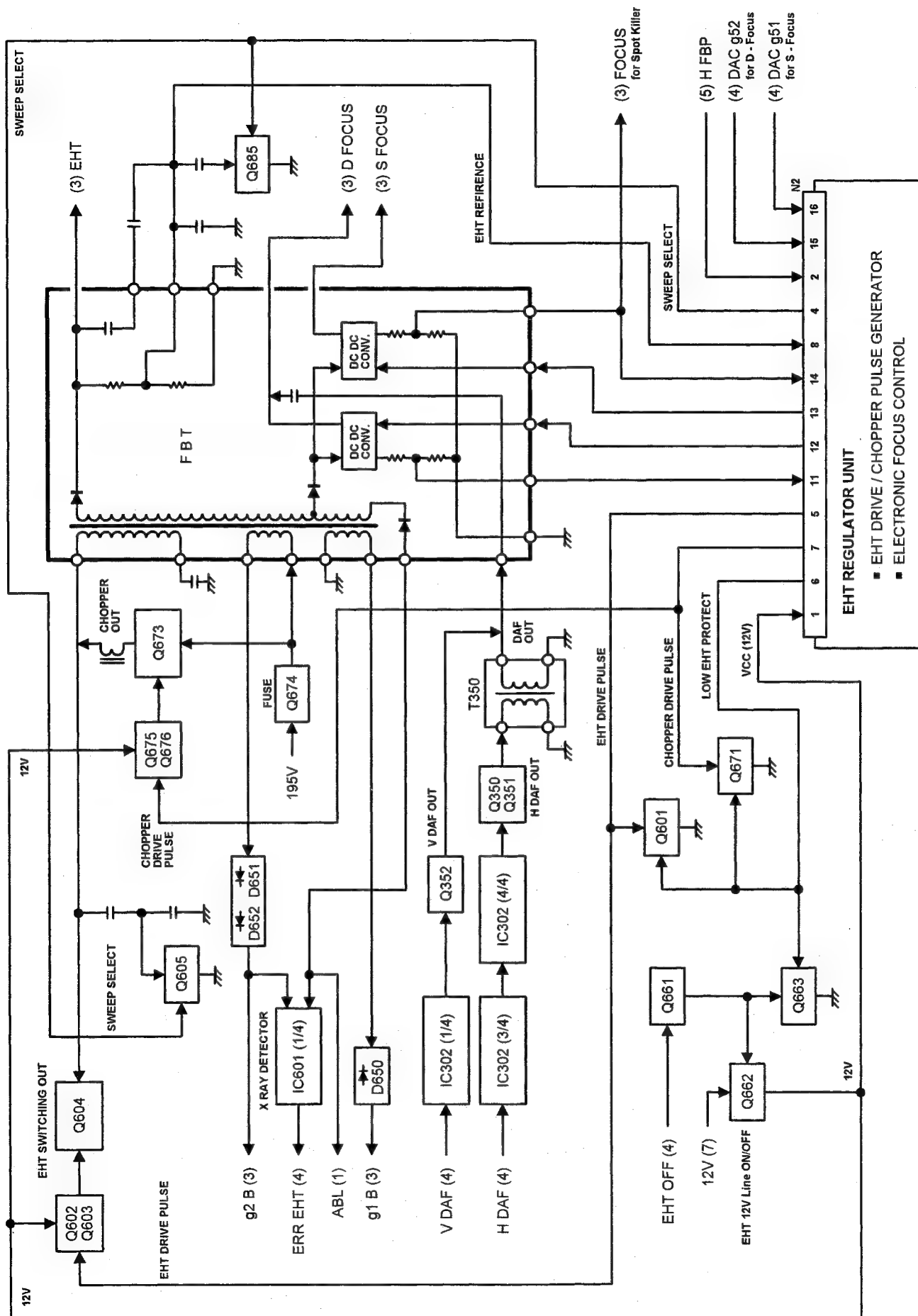


The schematic diagram illustrates the internal architecture of the DAC IC541. At the top, several input signals are shown: V PCC (4), H SIZE, H OFF, H CENT, C SEL 2, C SEL 3, C SEL 4, (9) V CENT, (9) TILT P, (6) DAC G52 (for D-FOCUS), (6) DAC G51 (for S-FOCUS), (4) IIC SCL, and (4) IIC SDA. These inputs feed into various functional blocks.

- H Drive Section:** Includes IC540 (H DRIVE +B OUT), IC535/Q536, IC531, IC532/Q533, IC534, and IC550 (H OUT). It also incorporates transformers T541 and T542, and a 28V supply.
- Chopper Pulse Gen. Section:** Features IC8001-Q8002, IC850, and IC583, which generate CHOPPER DRIVE and CHOPPER OFF signals.
- Control and Timing Section:** Includes IC581 (H CENTER OUT), IC582 (25V REG.), and IC563/L563/L573/Q568/C568, handling timing and regulation.
- Output and Selection Section:** Contains multiple comparators and switches (Q560-Q567) controlled by C SEL signals, leading to outputs like H DEF OUT, H DY 1, H DY 2, and V PARA (4).

The diagram uses standard electronic symbols for components such as resistors, capacitors, inductors, transistors, and integrated circuits, providing a comprehensive view of the device's internal operation.

# SHEET (6) EHT OUT

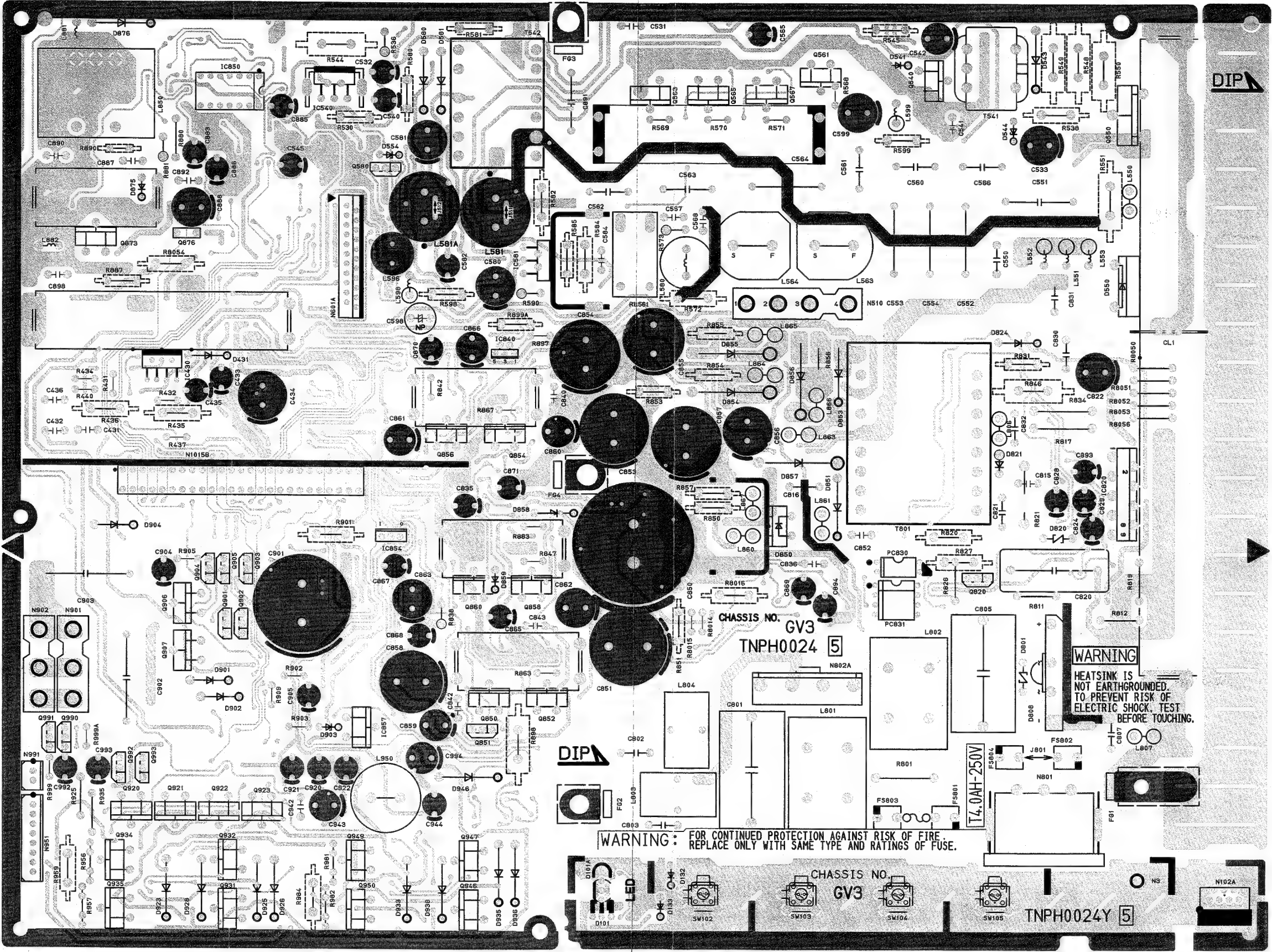


## MAIN BOARD (Solder side)



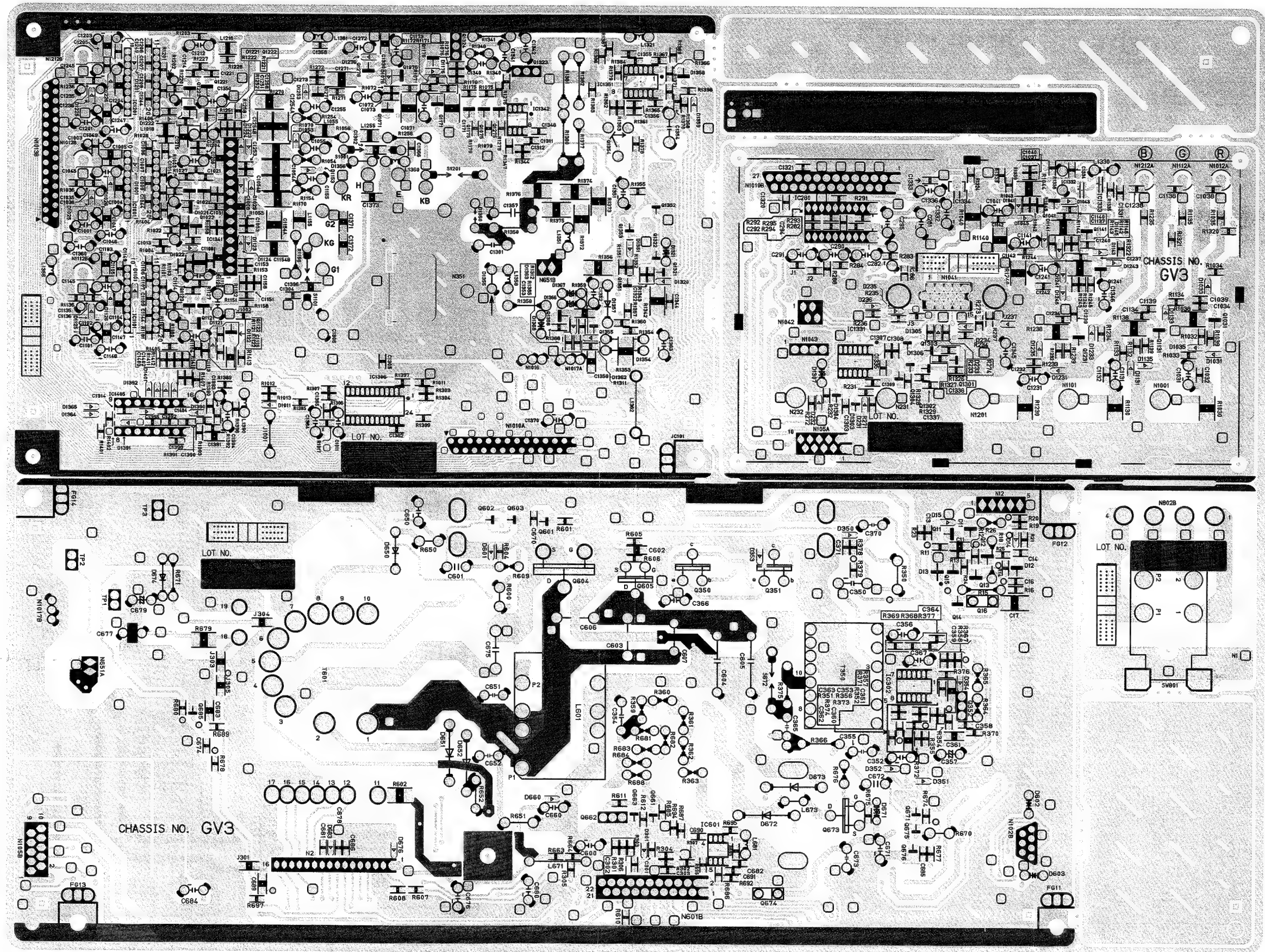


MAIN BOARD (Parts side)



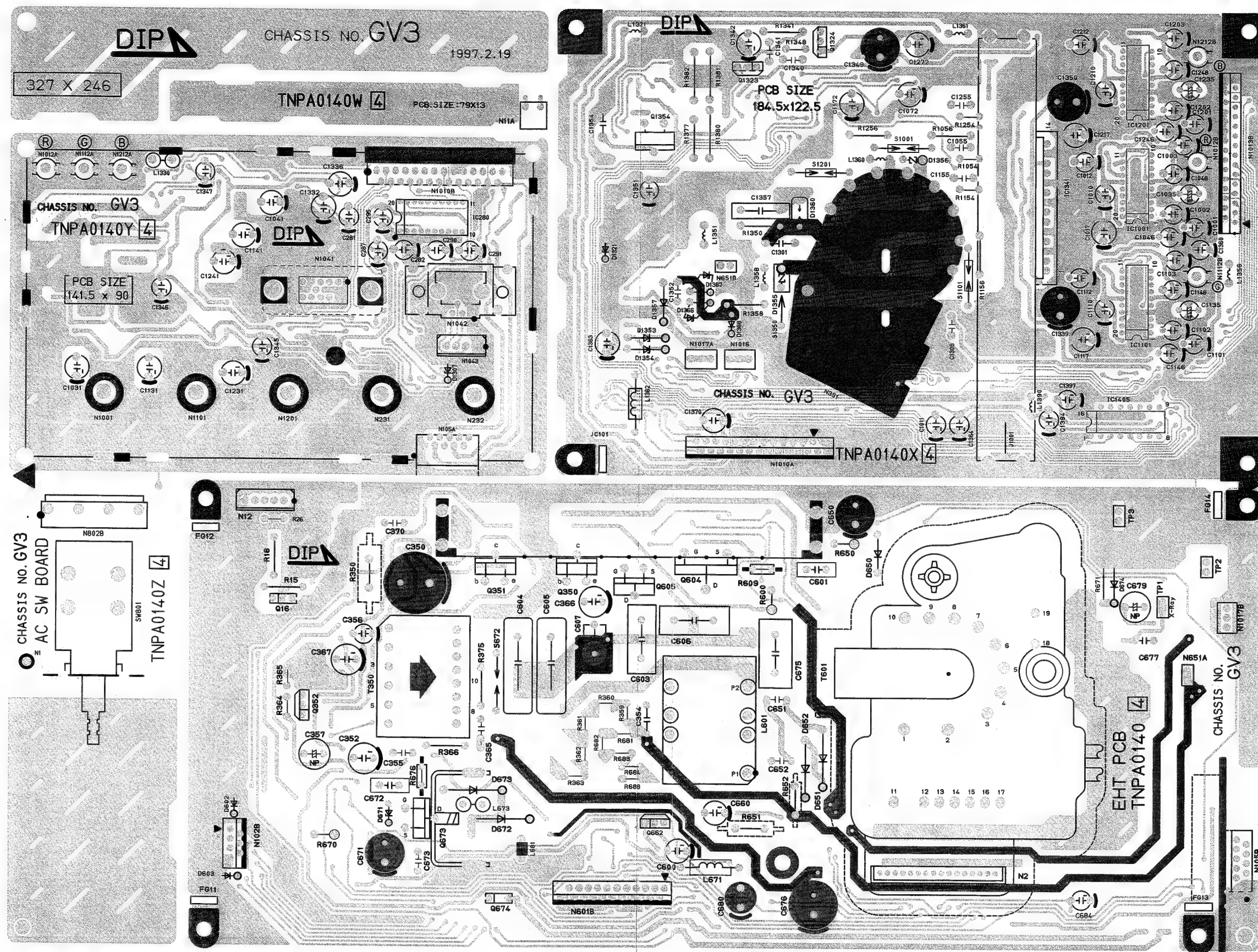


# VIDEO EHT BOARD (Solder side)





### VIDEO EHT BOARD (Parts side)



## SCHEMATIC DIAGRAM

### IMPORTANT SAFETY NOTICE

The component identified by shading or international symbol Y on the following schematic diagrams incorporate special features important for protection from X-Radiation, fire and electrical shock hazards. When servicing it is essential that only manufacturer's specified parts be used for those critical components.

### NOTES :

#### 1. RESISTOR

All resistors are carbon 1/4W resistor, unless otherwise noted by the following marks.

Unit of resistance is ohm ( $\Omega$ ), (K = 1,000, M = 1,000,000)

- |                             |  |
|-----------------------------|--|
| ○ : Non Flammable           | △ : Solid                                |
| ⊠ : Metal Oxide             | ⊙ : Metal (Precision and high stability) |
| □ : Wire Wound              | ⊞ : Thermistor                           |
| ⊗ : Fusible                 | ⊞⊞ : Positive coefficient Thermistor     |
| ⊞ : Flame Proof Rectangular |  |

#### 2. CAPACITOR

All capacitors are ceramic 50V capacitor, unless otherwise noted by the following marks,

Unit of capacitance is  $\mu$ F, unless otherwise noted,

- |                              |                          |
|------------------------------|--------------------------|
| ○ : Electrolytic             | Ⓜ : Polyester            |
| ⊠ : Tantalum                 | ⓂⓂ : Metalized Polyester |
| □ : Bipolar                  | ⊠ : Polypropylene        |
| ⊗ : Polystyrene              | △ : Mica                 |
| ⊞ : Temperature Compensation | ○ : Ceramic              |
|                              | ⊙ : Ceramic (SL)         |

#### 3. COIL

Unit of inductance is  $\mu$ H, unless otherwise noted.

#### 4. VOLTAGE MEASUREMENT

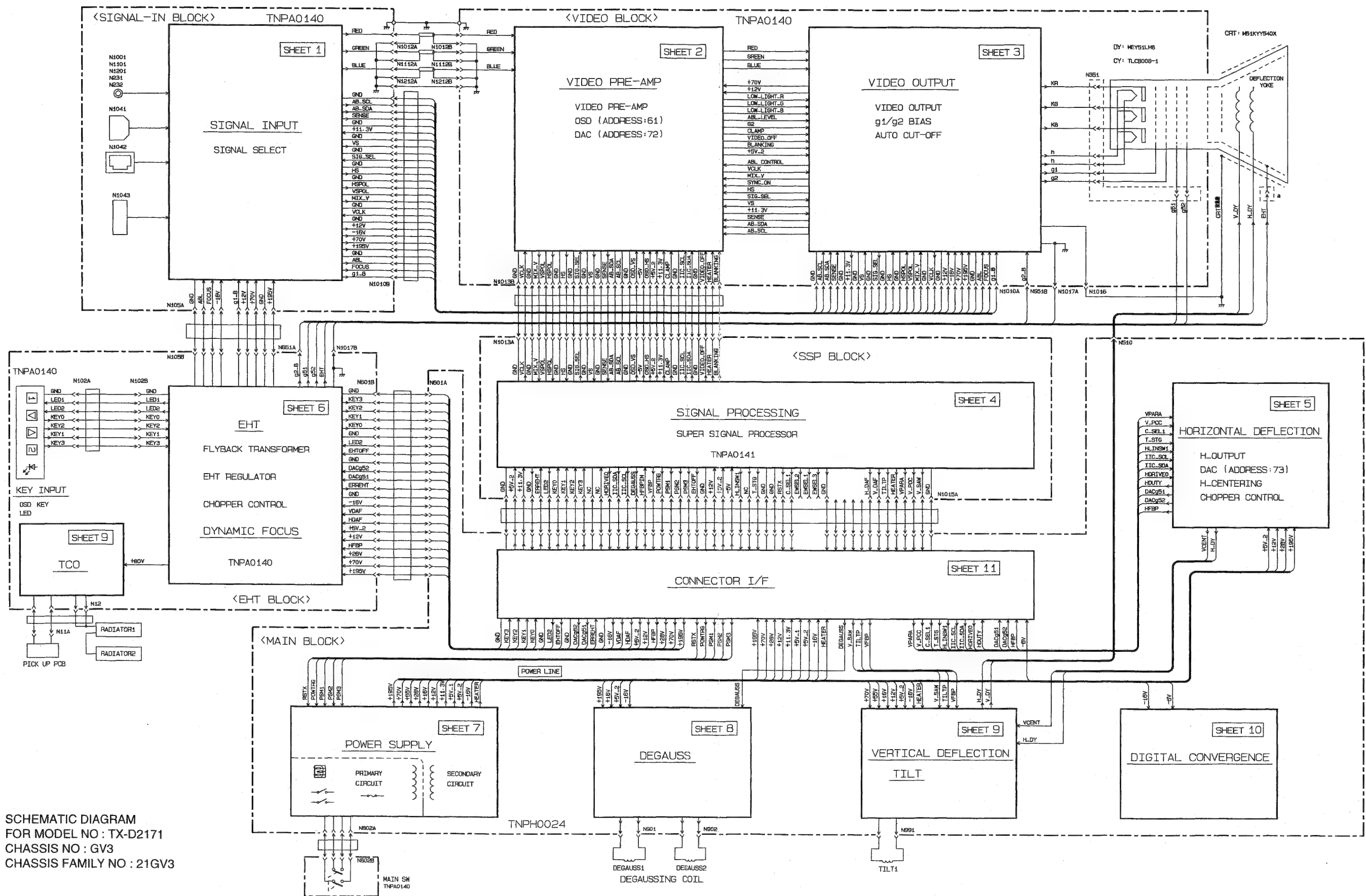
Voltage is measured by a digital meter receiving normal signal.

5. This schematic diagram is the latest at the time of printing and is subject to change without notice.

### SERVICE NOTES :

This model has a section that does not share a common ground with the power supply section. The different sections are referred to as the HOT section and the COLD section in the precautions below.

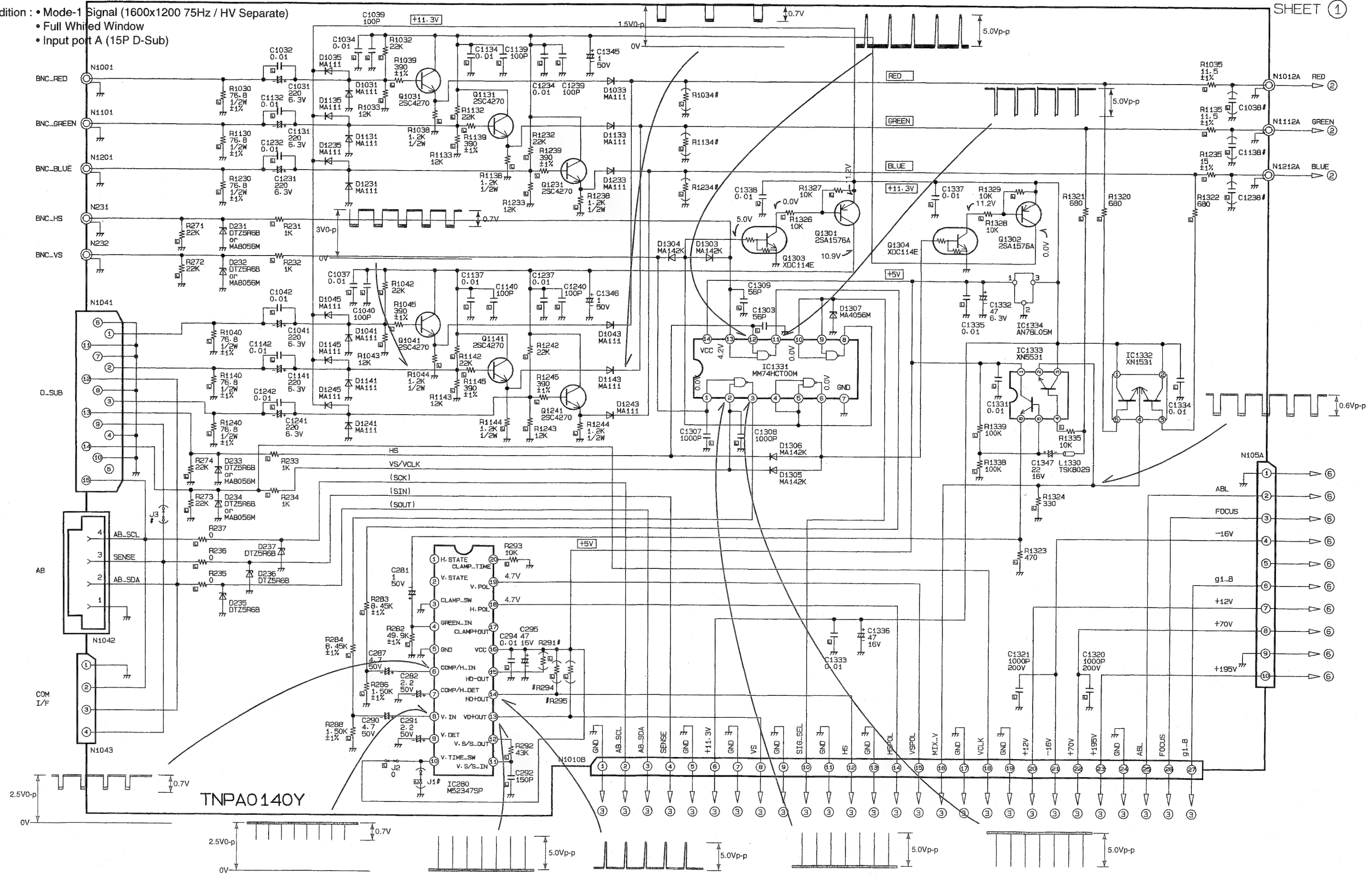
1. Do not touch the HOT section and the COLD section at the same time. You may receive an electric shock.
2. Do not short the HOT section to the COLD section. This could blow the fuse or damage parts.
3. Never measure the HOT section and the COLD section at the same time when using tools such as oscilloscopes or multi-meters.
4. Always unplug the unit before beginning any operation such as removing the chassis.



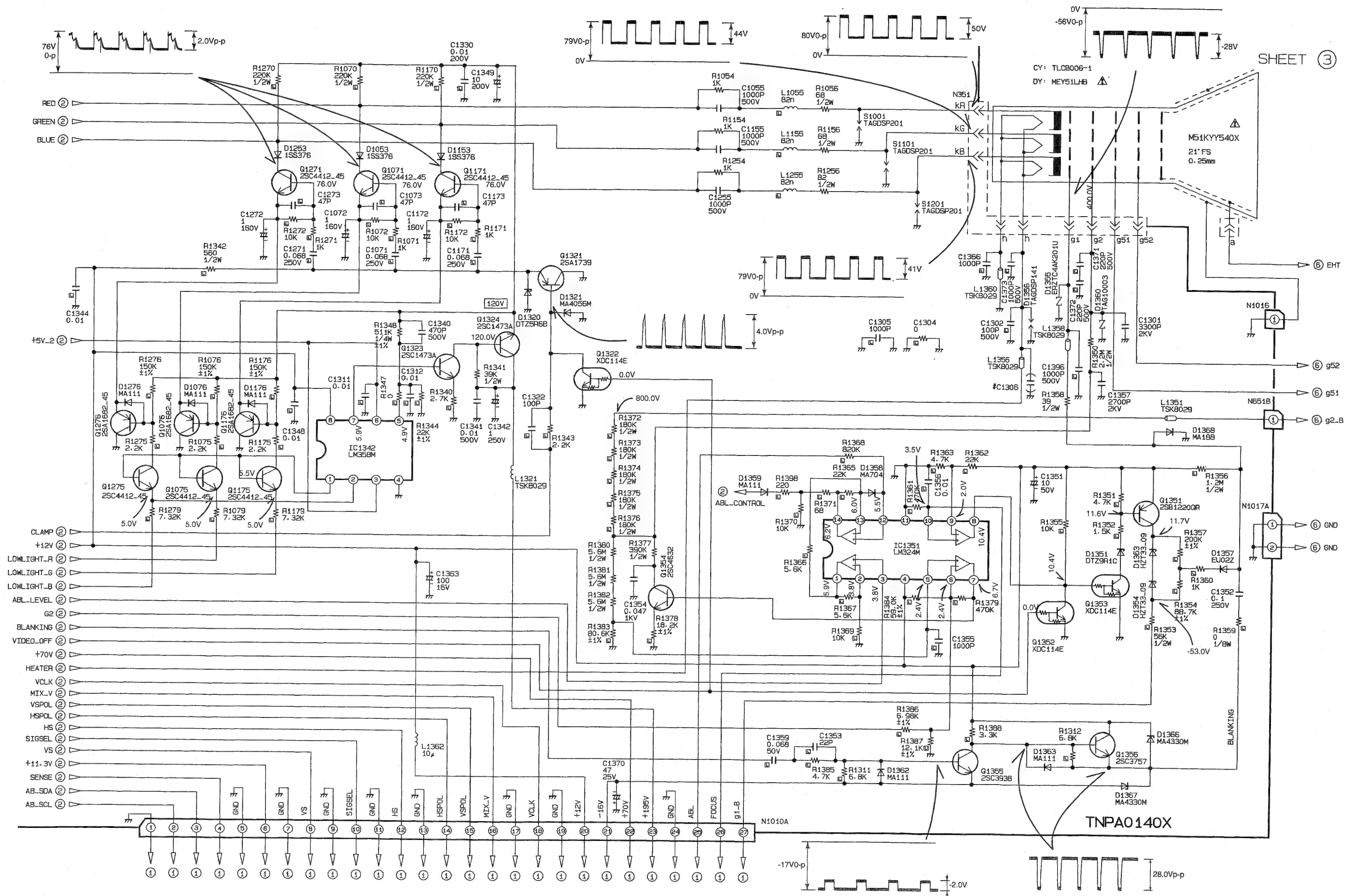
SCHEMATIC DIAGRAM  
FOR MODEL NO : TX-D2171  
CHASSIS NO : GV3  
CHASSIS FAMILY NO : 21GV3



Condition : • Mode-1 Signal (1600x1200 75Hz / HV Separate)  
 • Full White Window  
 • Input port A (15P D-Sub)





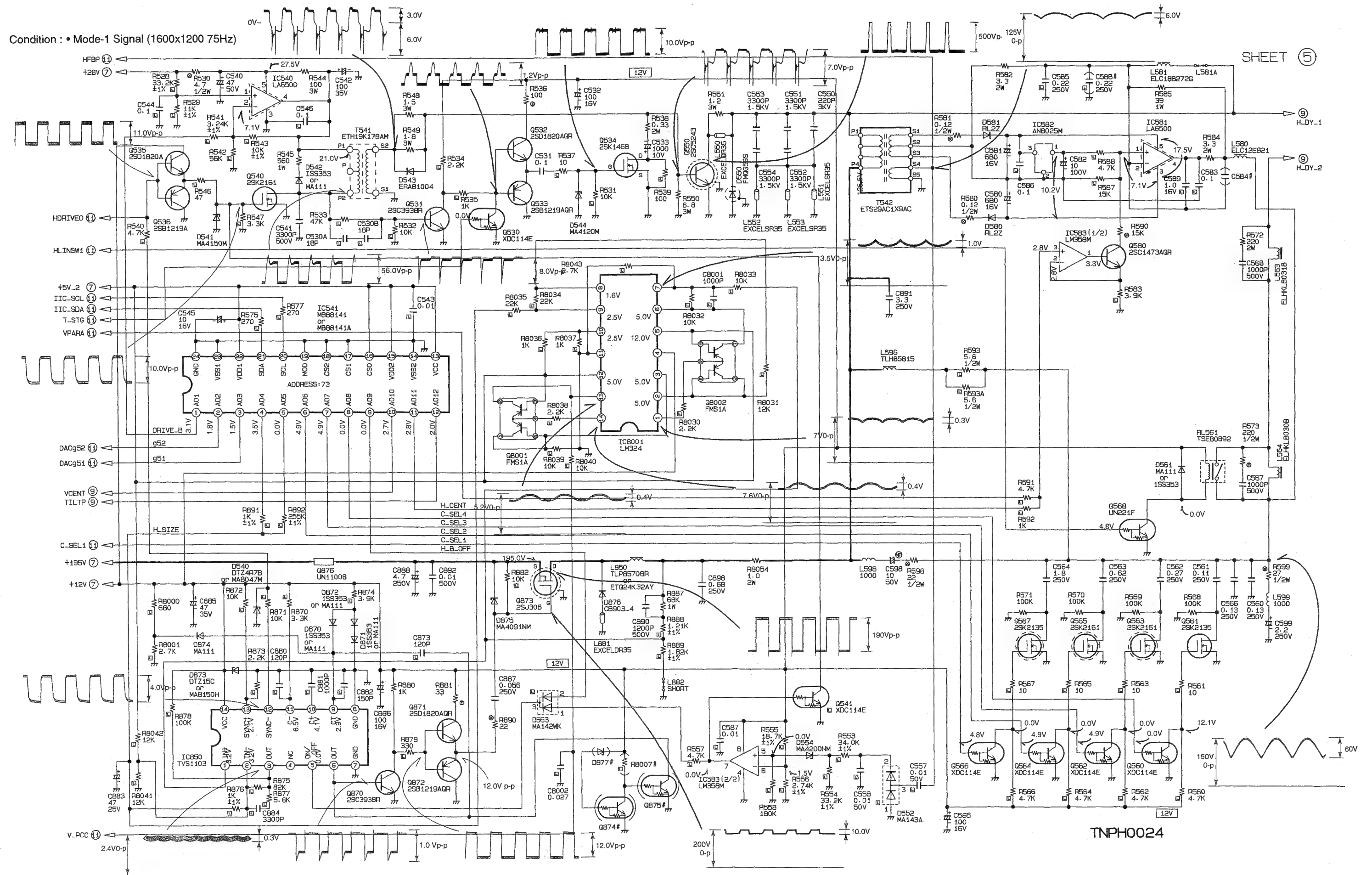




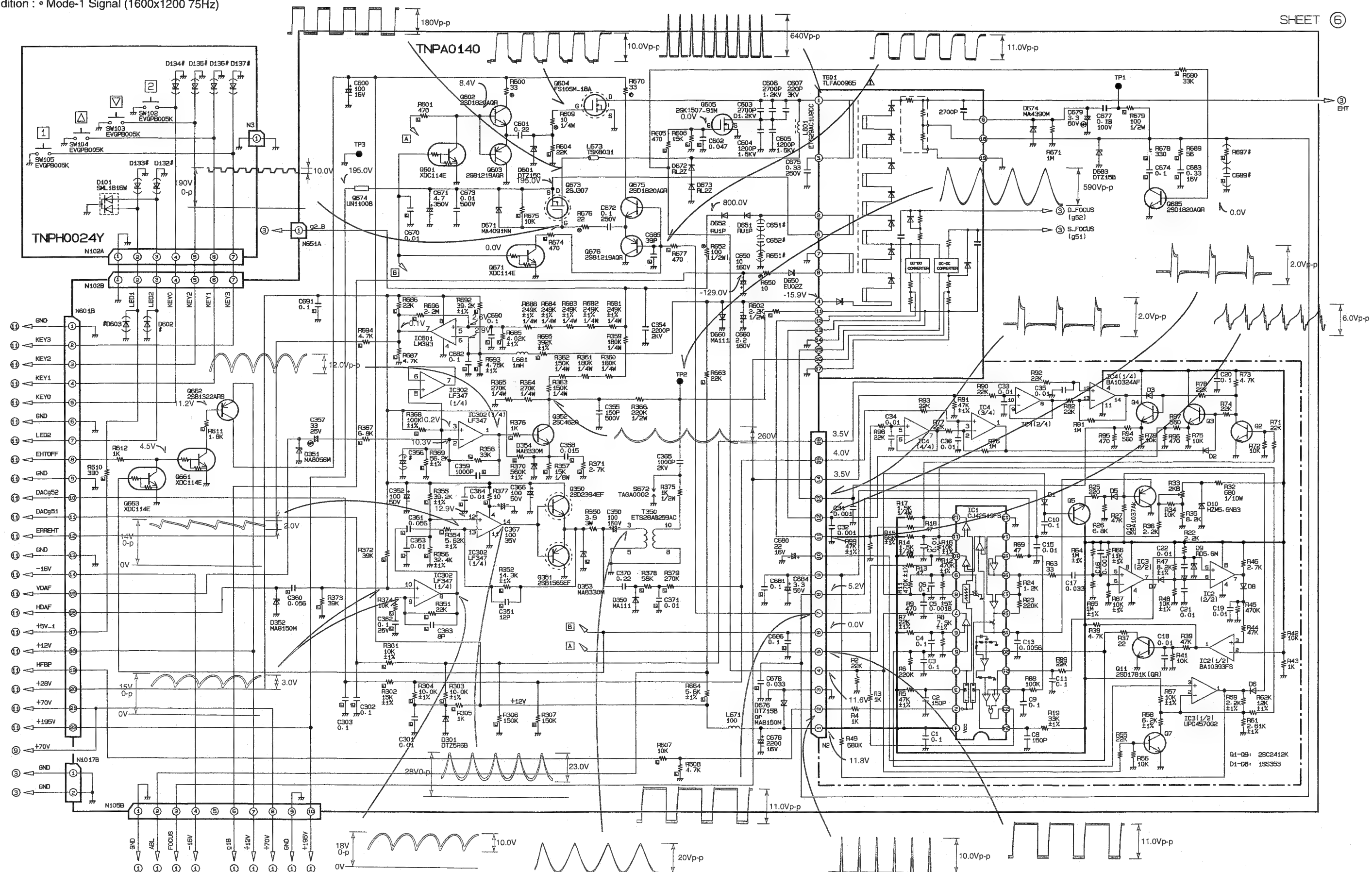


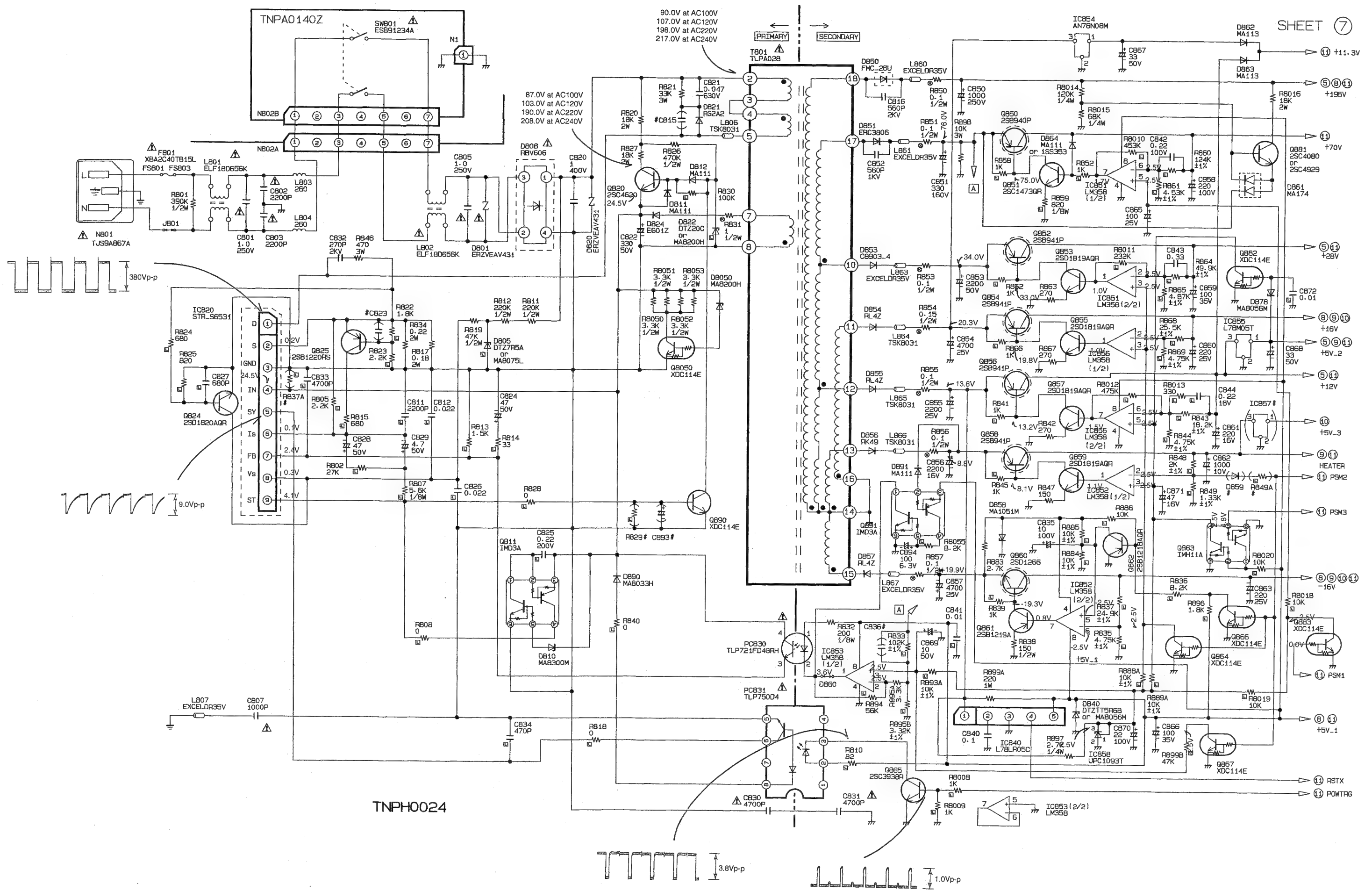
Condition : • Mode-1 Signal (1600x1200 75Hz)

SHEET ⑤



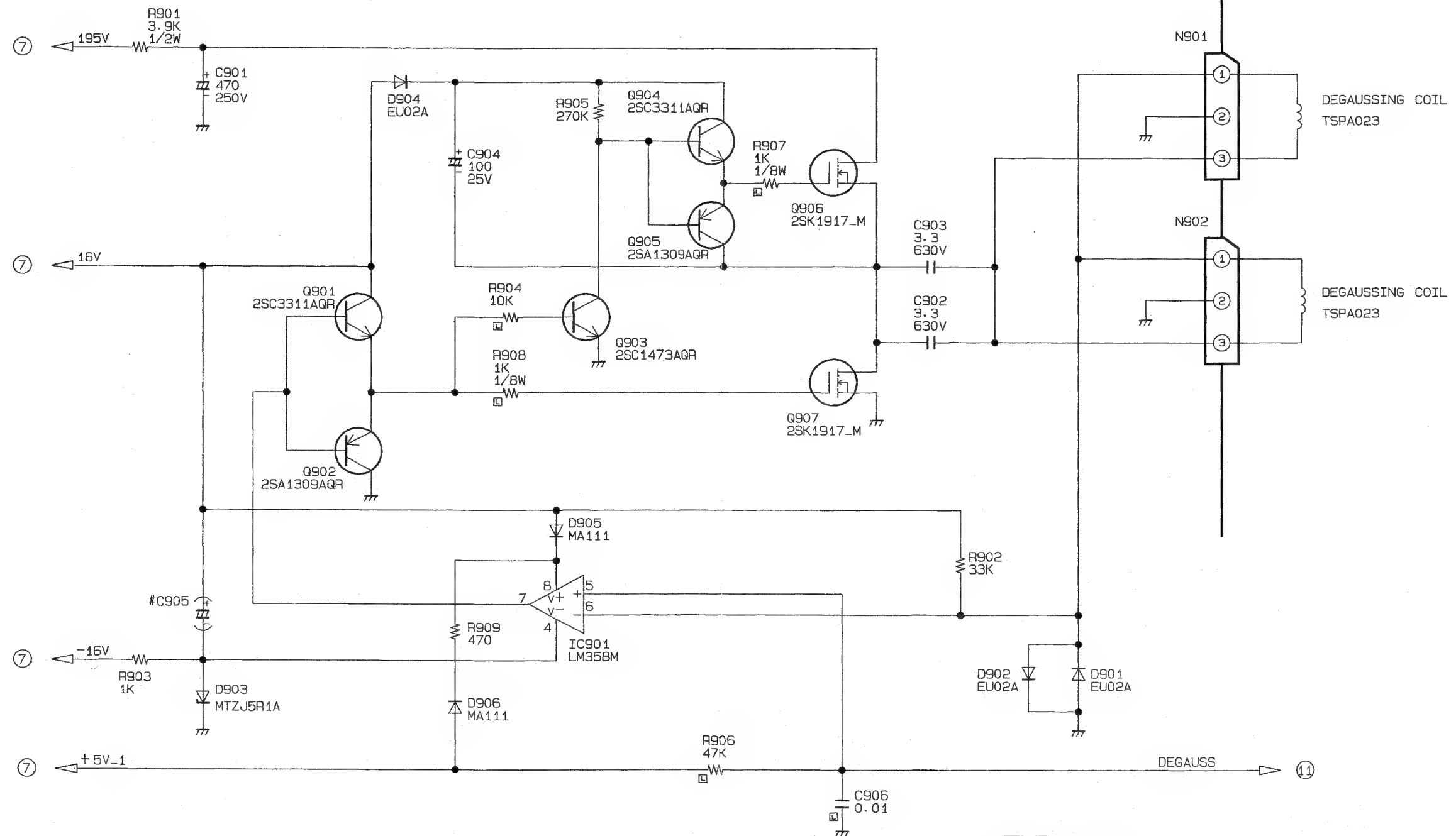
TNPH0024





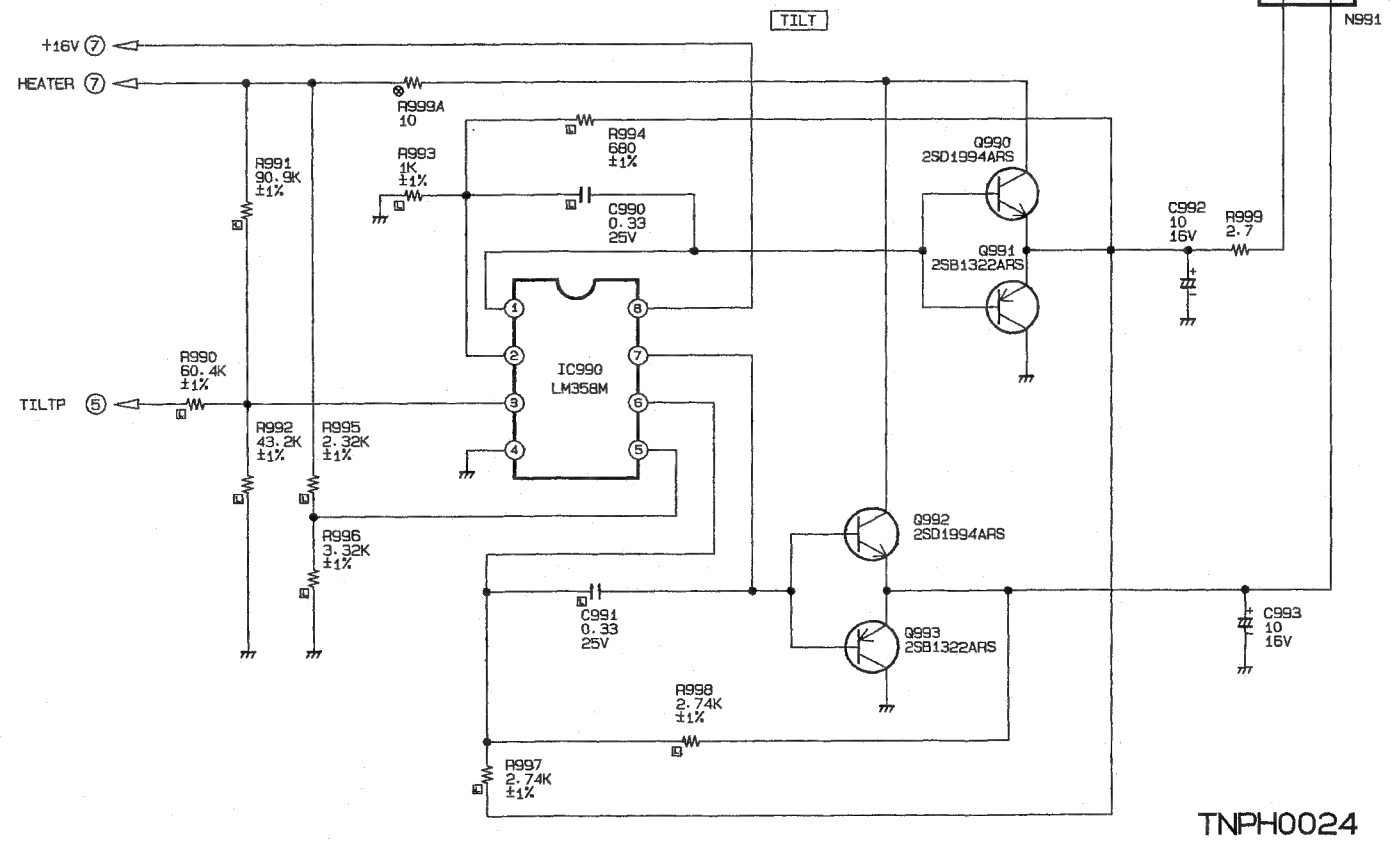
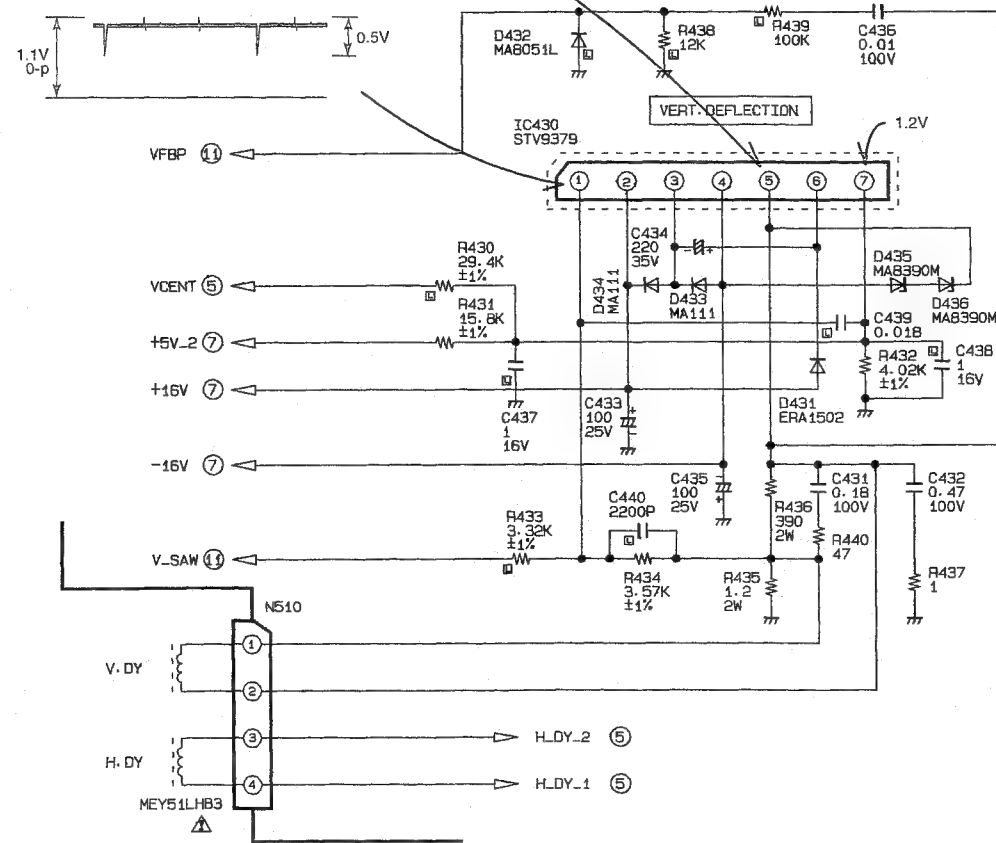
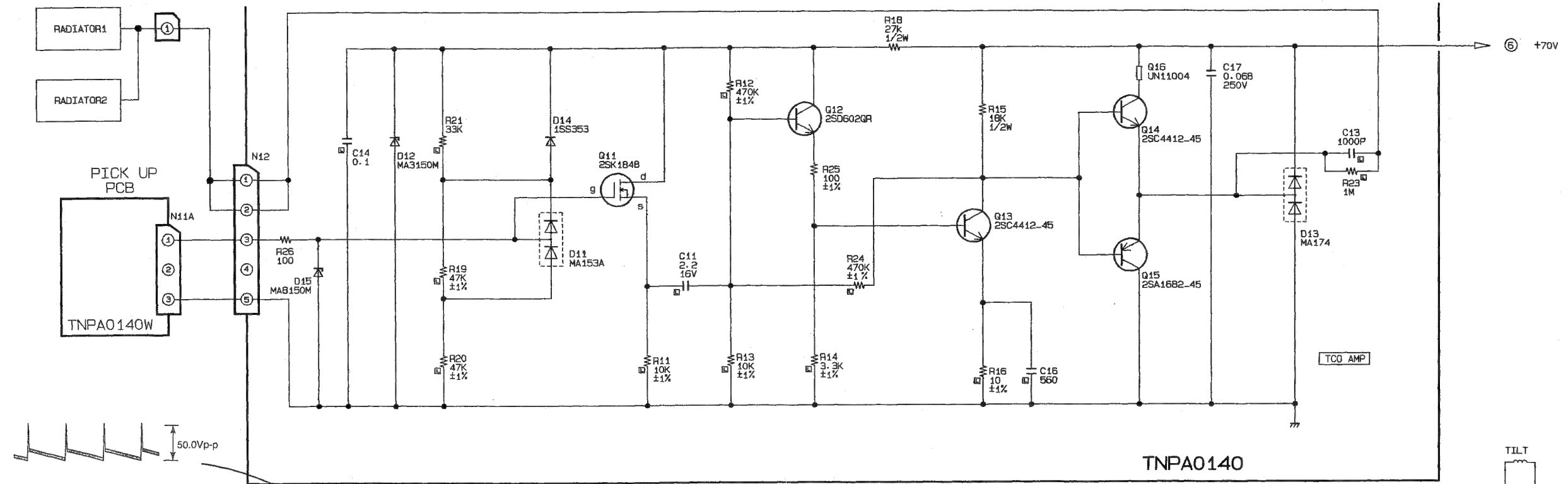
Important safety notice  
Components identified by mark have special characteristics important for safety.  
When replacing any of components, use only manufacturer's specified parts.

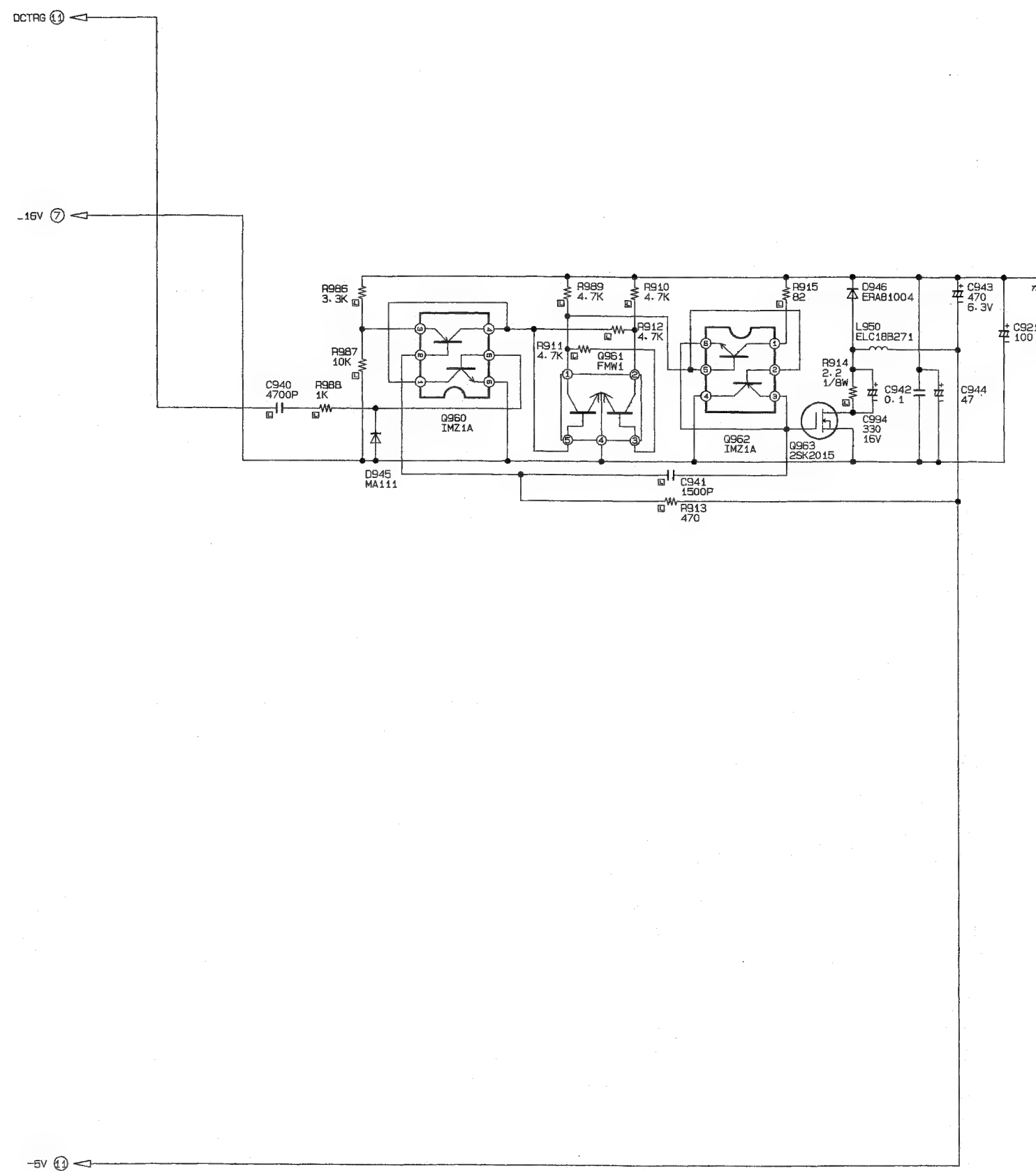
SHEET ⑧



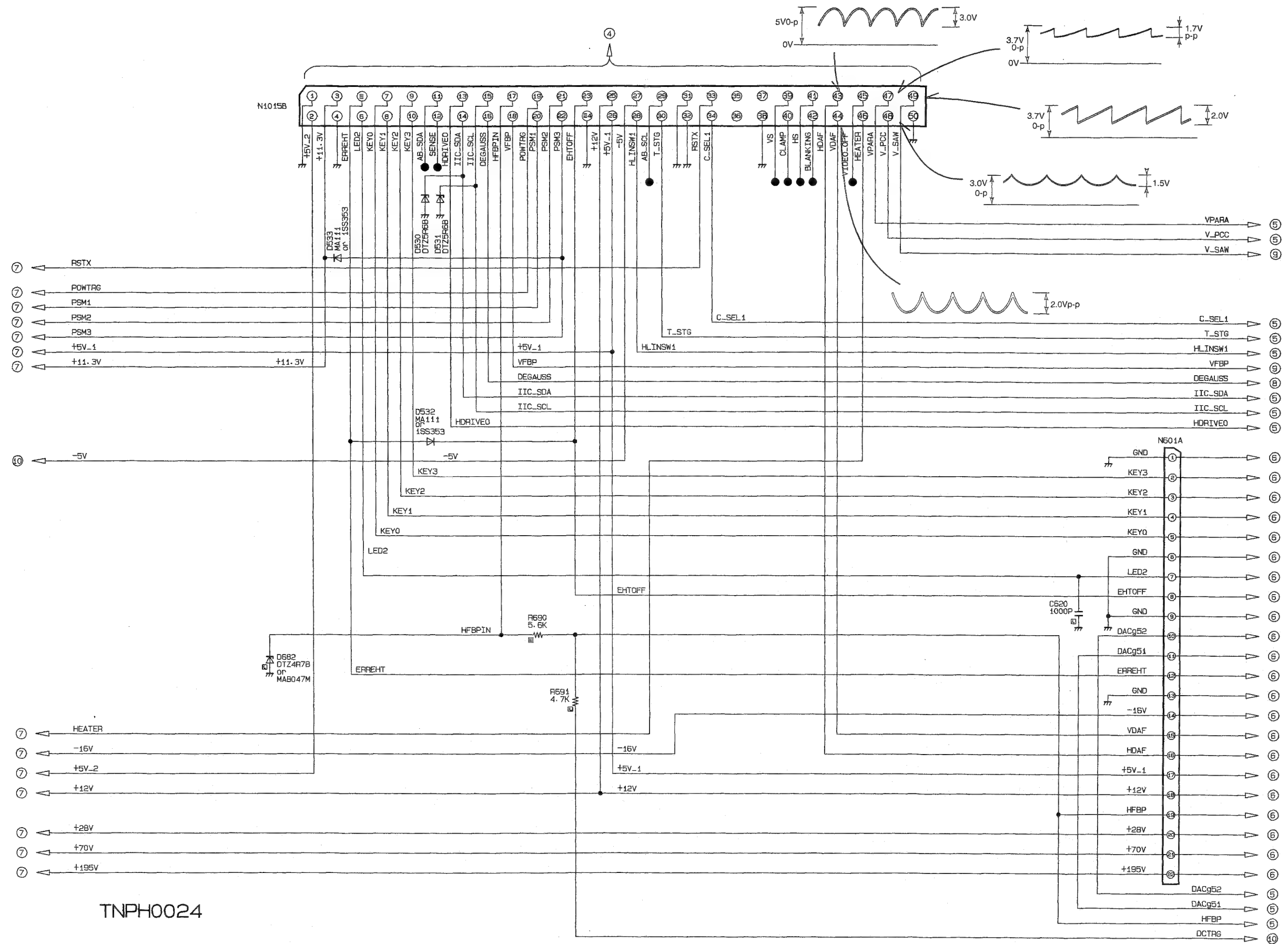
TNP0024







TNPH0024



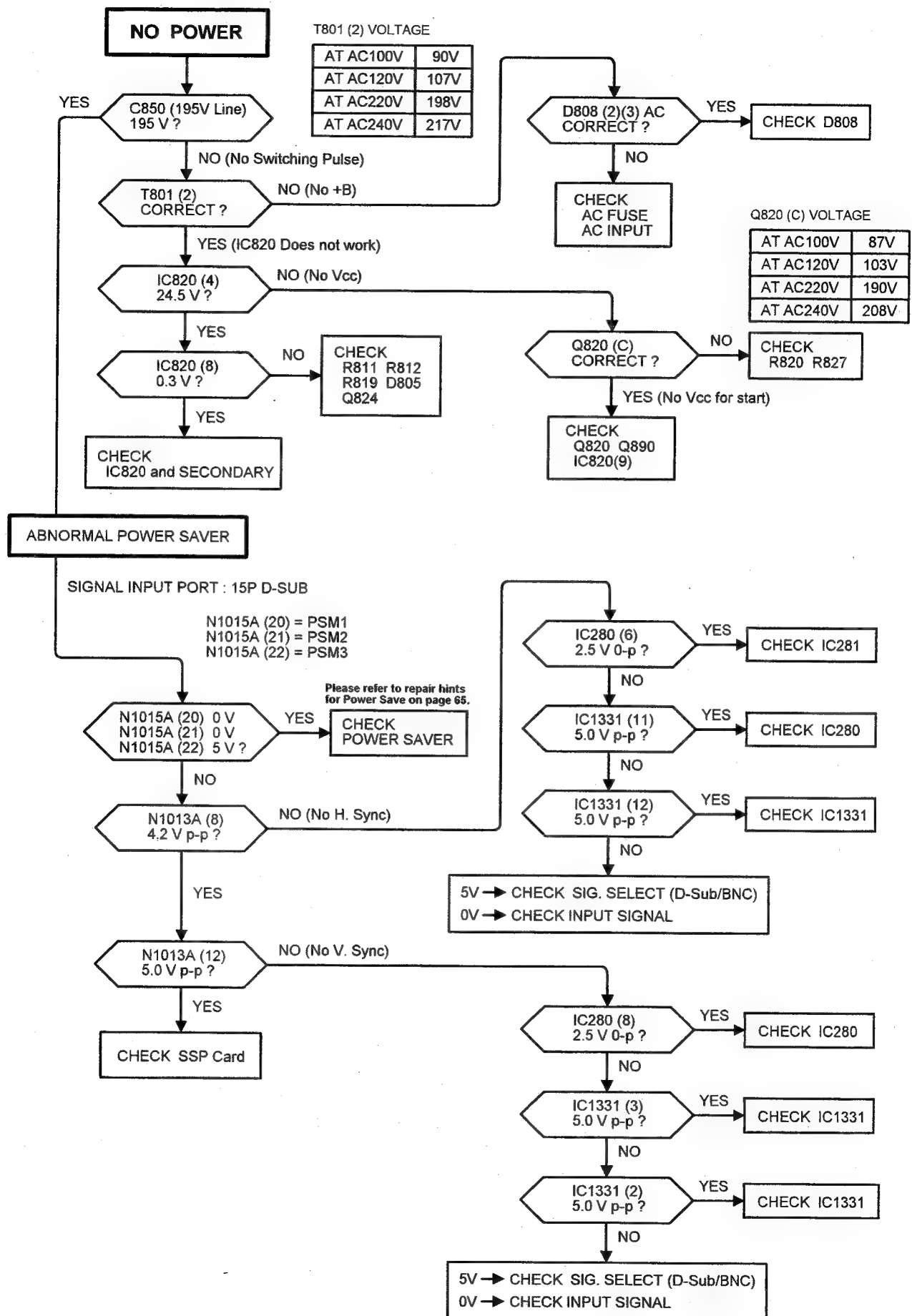
- NO CHARACTERS
- MISSING ONE COLOR

```

graph TD
    Start([• NO CHARACTERS  
• MISSING ONE COLOR]) --> Ex[EXAMPLE : GREEN MISSING  
SIGNAL PORT : 15P D-SUB]
    Ex --> Q1[CR1 KG  
79 V 0-p ?]
    Q1 -- YES --> R1[NO RASTER]
    R1 --> Q2[IC1341 (4)  
64 V 0-p ?]
    Q2 -- YES --> Q3[IC1341 (1)  
2.2 V 0-p ?]
    Q3 -- YES --> R2[VIDEO SIGNAL  
CHECK IC1341]
    Q3 -- NO --> Q4[Q1123 (B)  
5.5 V 0-p ?]
    Q4 -- YES --> R3[VIDEO SIGNAL  
CHECK Q1121 Q1122  
Q1123]
    Q4 -- NO --> Q5[IC1101 (5)  
3.0 V 0-p ?]
    Q5 -- YES --> R4[Q1301 (C)  
10.9 V ?]
    Q5 -- NO --> Q6[Q1303 (B)  
5.0 V ?]
    Q6 -- YES --> R5[D - SUB / BNC  
CHECK Q1301 , Q1303]
    Q6 -- NO --> Q7[IC1331 (9,10)  
0 V ?]
    Q7 -- YES --> R6[D - SUB / BNC  
CHECK SIG. SELECT]
    Q7 -- NO --> R7[CHECK IC1331]
    R7 --> Q8[IC1101 (10)  
5.0 V p-p ?]
    Q8 -- YES --> Q9[IC1101 (20)  
4.0 V p-p ?]
    Q9 -- YES --> Q10[IC1101 (7)  
3.0 V ?]
    Q10 -- YES --> R8[CHECK IC1101 12V Line]
    Q10 -- NO --> R9[CHECK IC1306(3)  
G - CONTRAST]
    Q9 -- NO --> R10[CHECK IC1405(12)  
BLK : OSD SELECT]
    R10 --> Q11[Q1321 (B)  
4.0 V p-p ?]
    Q11 -- YES --> R11[CHECK Q1321]
    Q11 -- NO --> Q12[Q1322 (B)  
0 V ?]
    Q12 -- YES --> R12[CHECK SSP Card  
CLAMP]
    Q12 -- NO --> R13[CHECK SSP Card  
VIDEO OFF]
    R13 --> Q13[Q1171 (B)  
76 V ?]
    Q13 -- YES --> Q14[Q1175 (B)  
5.5 V ?]
    Q14 -- YES --> Q15[Q1175 (E)  
5.0 V ?]
    Q15 -- YES --> R14[CHECK Q1175 Q1176]
    Q15 -- NO --> R15[CHECK IC1306 (11)  
G - LOW LIGHT]
    Q14 -- NO --> R16[CHECK IC1342]
    Q13 -- NO --> Q16[Q1324 (E)  
120 V ?]
    Q16 -- YES --> R17[CHECK Q1323 Q1324  
IC1342 195V line]
    Q16 -- NO --> R18[CHECK IC1306 (11)  
G - LOW LIGHT]
  
```

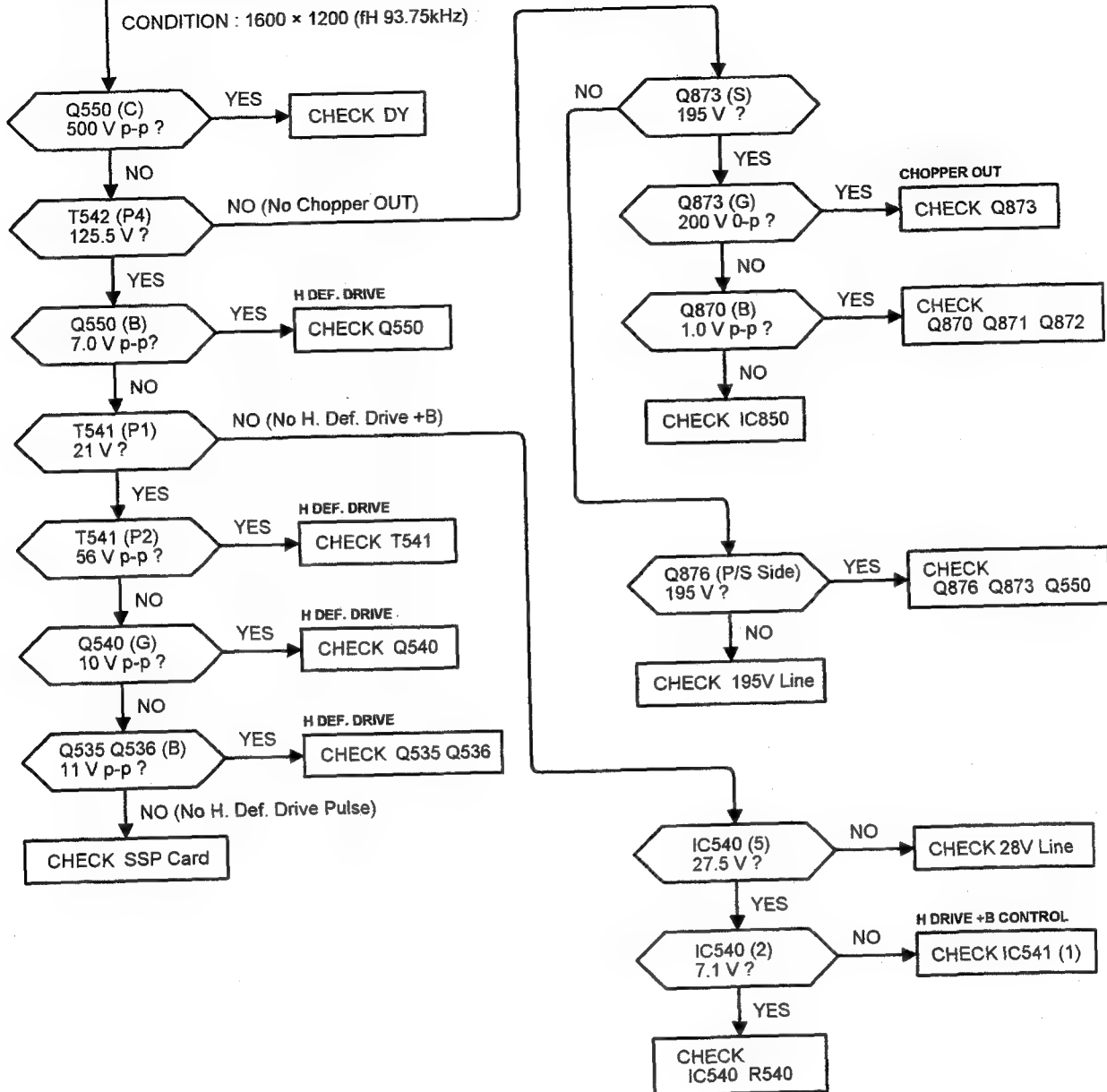
```

graph TD
    Start([NO RASTER]) --> Q1356{Q1356 (E)  
28 V p-p ?}
    Q1356 -- NO --> Q673S{Q673 (S)  
195 V ?}
    Q1356 -- YES --> Q1351{Q1351 (B)  
11.6 V ?}
    Q1351 -- NO --> Q1352{Q1352 (B)  
0 V ?}
    Q1351 -- YES --> D1354{D1354 (A)  
-53 V ?}
    D1354 -- NO --> D650[CHECK D650 R650  
g1B]
    D1354 -- YES --> Q1351_CHECK[CHECK Q1351]
    Q1352 -- NO --> SSP_VIDEO[CHECK SSP Card  
VIDEO OFF]
    Q1352 -- YES --> IC1351[CHECK IC1351  
Q1352 Q1353]
    Q1355{Q1355 (B)  
-17 V 0-p ?} -- NO --> SSP_BLANK[CHECK SSP Card  
BLANKING]
    Q1355 -- YES --> Q1355_CHECK[CHECK Q1355 Q1356]
    R1372{R1372  
800 V ?} -- NO --> D651[CHECK D651 D652]
    R1372 -- YES --> R1372_CHECK[CHECK R1372 R1373  
R1373 R1374  
R1375 R1376]
    Q674{Q674 (P/S Side)  
195 V ?} -- YES --> Q674_CHECK[CHECK 195V Line]
    Q674 -- NO --> Q674_CHECK_BOX[CHECK Q674 Q673  
Q604]
    Q673S -- NO --> Q673G{Q673 (G)  
190 V p-p ?}
    Q673S -- YES --> Q673G_CHECK[CHECK Q673]
    Q673G -- YES --> Q673G_CHECK
    Q673G -- NO --> Q675{Q675 / Q676 (B)  
11.0 V p-p ?}
    Q675 -- YES --> Q675_CHECK[CHECK Q675 Q676]
    Q675 -- NO --> Q671{Q671 (B)  
0 V ?}
    Q671 -- NO --> EHT_REG_6[CHECK EHT REG. UNIT (6)]
    Q671 -- YES --> EHT_REG_1{EHT REG. UNIT (1)  
11.8 V ?}
    EHT_REG_1 -- YES --> EHT_REG_1_CHECK[CHECK EHT REG. UNIT]
    EHT_REG_1 -- NO --> Q661{Q661 (B)  
V ?}
    Q661 -- YES --> Q661_CHECK[CHECK 12V Line]
    Q661 -- NO --> SSP_CARD[CHECK SSP Card]
    CRT_G1{CRT G1  
-56 V 0-p ?} -- NO --> Q1356
    CRT_G1 -- YES --> CRT_G2{CRT G2  
400~450 V ?}
    CRT_G2 -- NO --> Q673S
    CRT_G2 -- YES --> CRT_KG{CRT KG, KR, KB  
79 V 0-p ?}
    CRT_KG -- NO --> NO_CHAR[NO CHARACTERS]
    CRT_KG -- YES --> CRT_EHT{CRT EHT  
25 KV ?}
    CRT_EHT -- YES --> CRT_CHECK[CHECK CRT]
    CRT_EHT -- NO --> Q673D{Q673 (D)  
180 V p-p ?}
    Q673D -- NO --> CHOPPER[CHOPPER OUT]
    Q673D -- YES --> Q604{Q604 (G)  
10.0 V p-p ?}
    Q604 -- YES --> Q604_CHECK[CHECK Q604]
    Q604 -- NO --> Q602{Q602 (B)  
8.4 V ?}
    Q602 -- YES --> Q602_CHECK[CHECK Q602 Q603]
    Q602 -- NO --> EHT_REG_UNIT[CHECK EHT REG. UNIT]
  
```



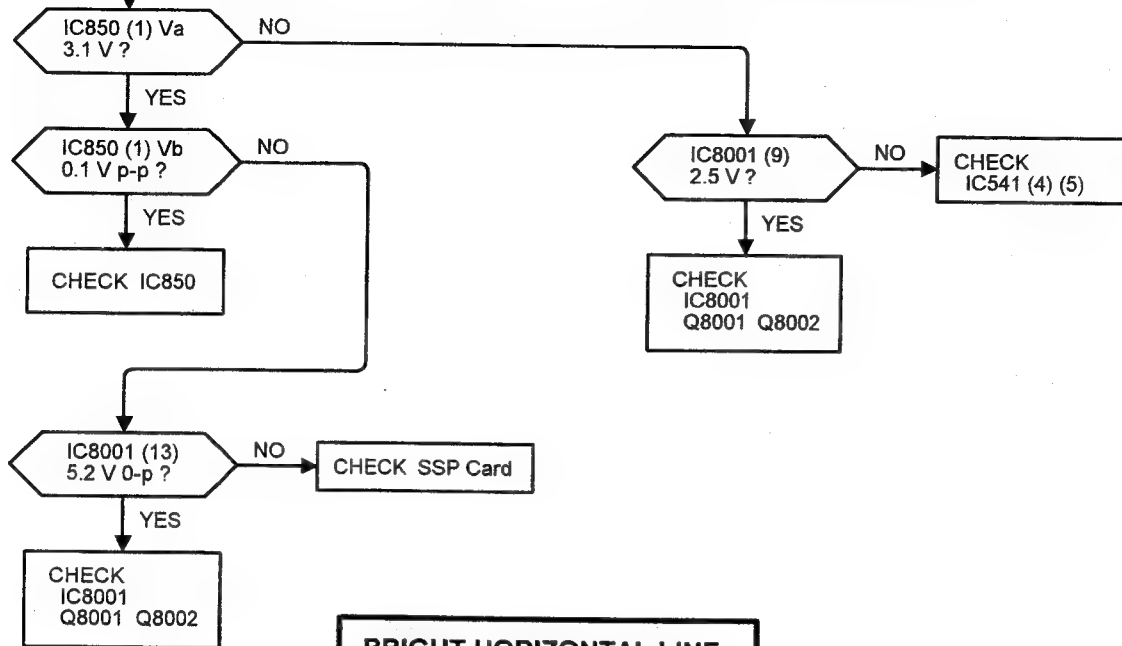
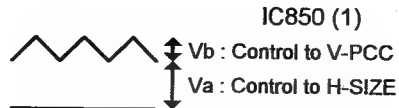
# DEFECTIVE HORIZONTAL DEFLECTION CIRCUIT

CONDITION : 1600 × 1200 (fH 93.75kHz)

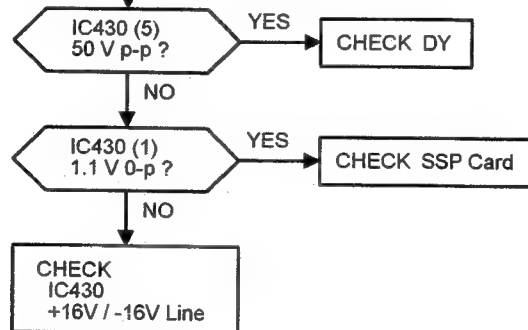


## INCORRECT V.PCC & H. SIZE

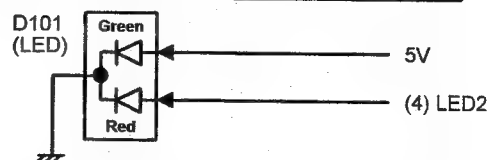
CONDITION : 1600 × 1200 (fH 93.75kHz)



## BRIGHT HORIZONTAL LINE APPEARS ON THE SCREEN



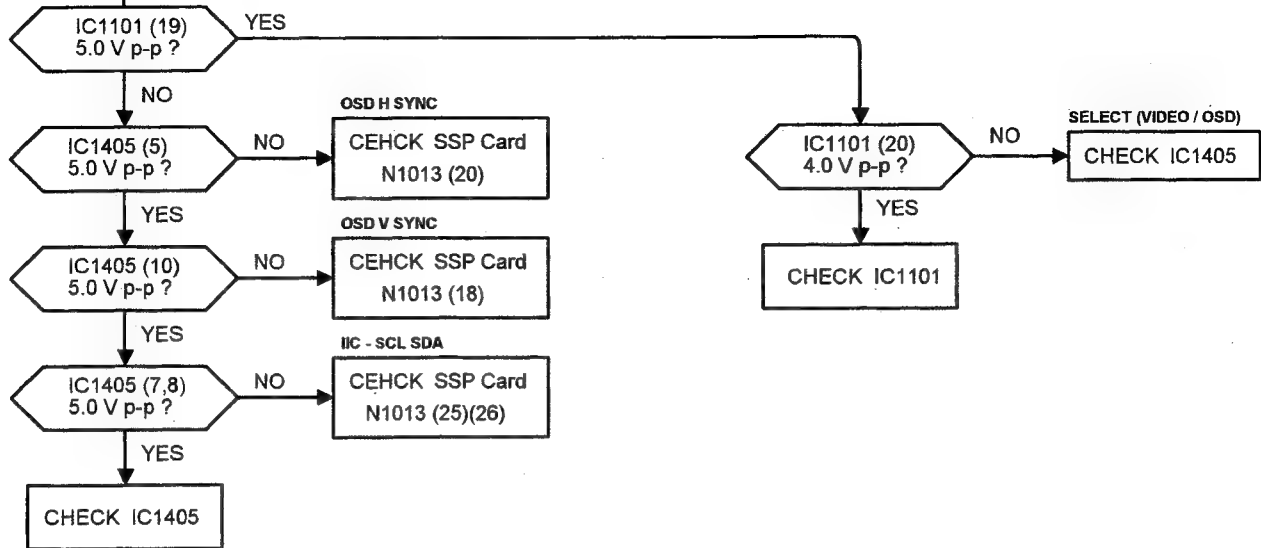
## ABNORMAL POWER INDICATOR



HS	VS	LED2	COLOR
ON	ON	LOW	GREEN
OFF	ON	HIGH	YELLOW
ON	OFF	HIGH	YELLOW
OFF	OFF	HIGH	YELLOW

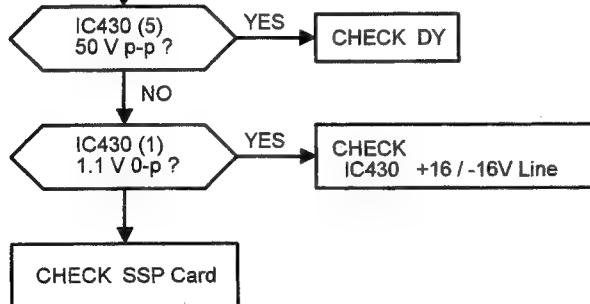
## O.S.D. DOES NOT WORK

EXAMPLE : MISSING GREEN.  
CONDITION : OSD ON

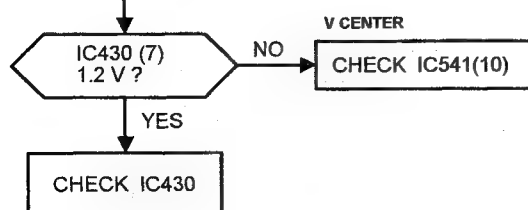


## INCORRECT V SIZE

CONDITION : 1600 × 1200 (fH 93.75kHz)

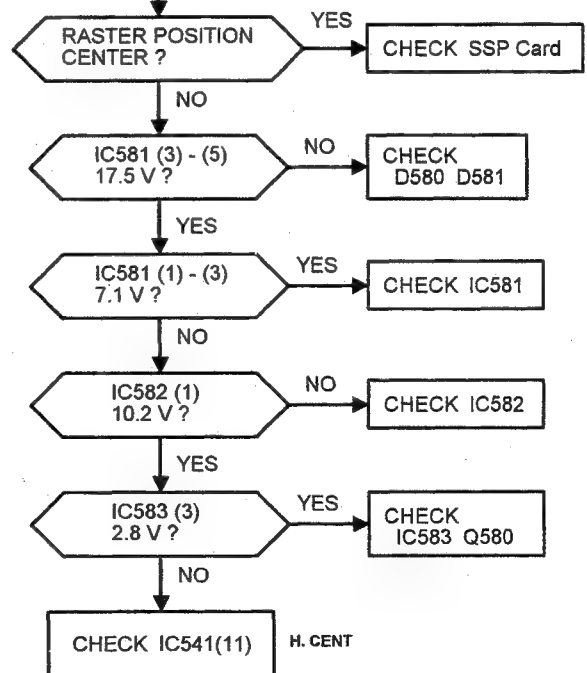


## INCORRECT V. POSITION CONTROL



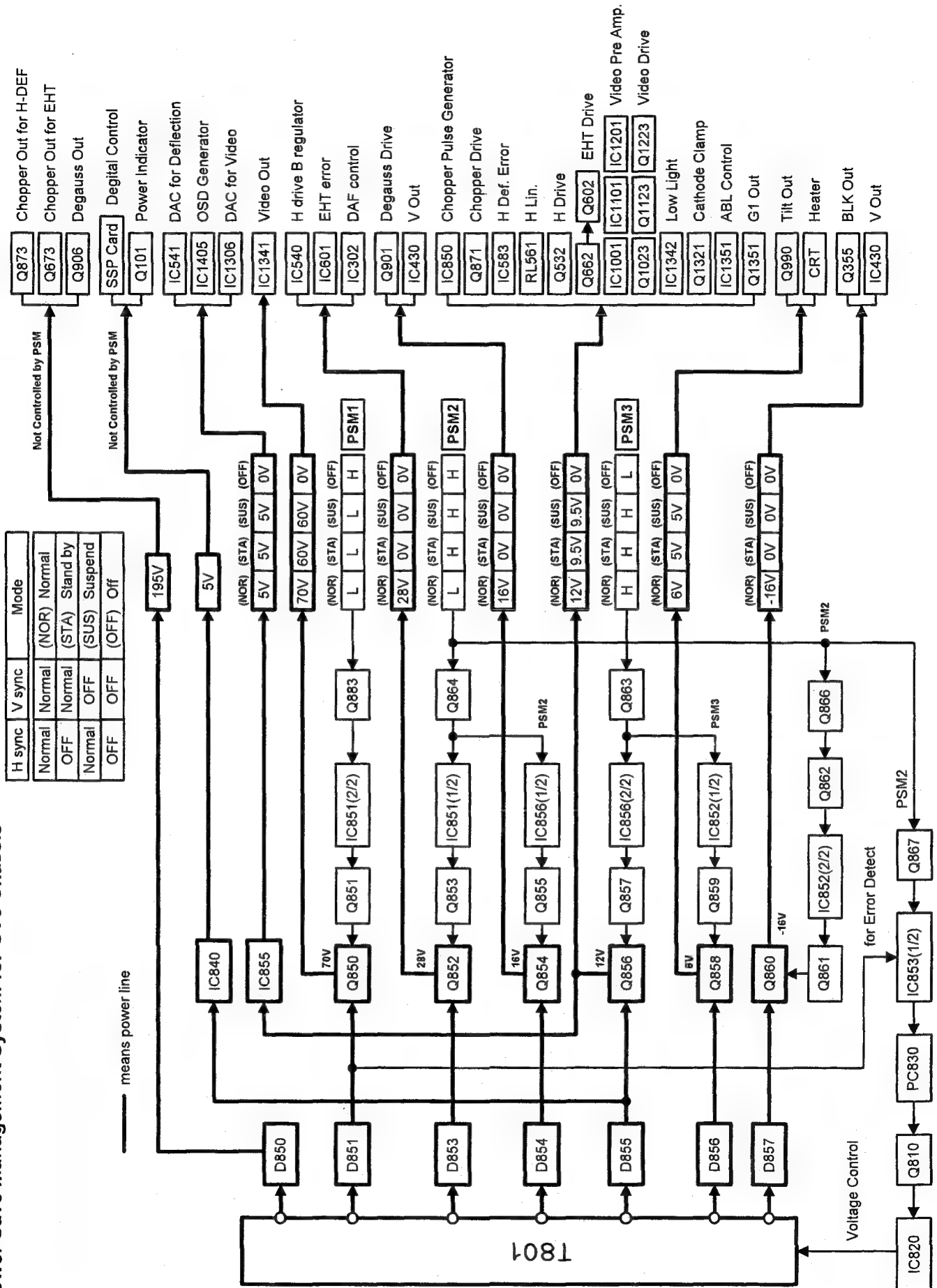
## INCORRECT H. POSITION CONTROL

CONDITION : 1600 × 1200 (fH 93.75kHz)





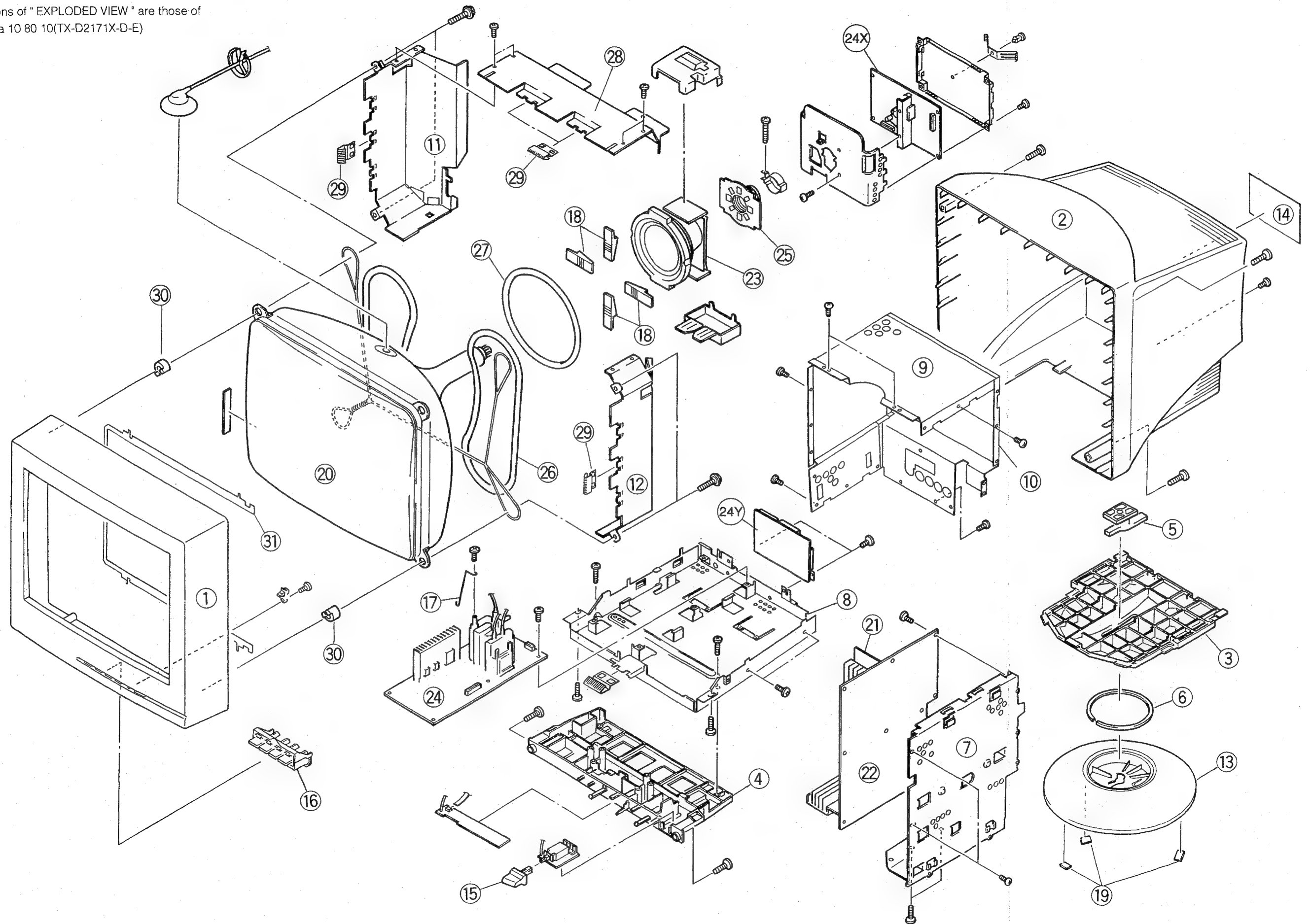
# Power Save Management System for GV3 Chassis





# EXPLODED VIEW

The illustrations of "EXPLODED VIEW" are those of  
Model;Belhea 10 80 10(TX-D2171X-D-E)



## REPLACEMENT PARTS A LIST

## Important Safety Notice

Components identified by the International symbol  have special characteristics important for safety. When replacing any of these components use only manufacture's specified parts.

## RESISTOR

PART NAME & DESCRIPTION			
TYPE		ALLOWANCE	
C	Carbon	F	$\pm 1\%$
F	Fuse	J	$\pm 5\%$
M	Metal Oxide	K	$\pm 10\%$
S	Solid	M	$\pm 20\%$
W	Wire Wound	G	$\pm 2\%$

	Part No.	Description
Example:	ERD25TJ104 (C) 100K (J)	1/4W

## CAPACITOR

PART NAME & DESCRIPTION		
	TYPE	ALLOWANCE
C	Ceramic	C ± 0.25pF
E	Electrolytic	D ± 0.5pF
P	Polyester	F ± 1pF
S	Styrol	J ± 5%
T	Tantalum	K ± 10%
PP	Polypropylene	L ± 15%
		M ± 20%
		P +100% – 0%
		Z +80% – 20%

	Part No.	Description
Example:	ECKF1H103ZF (C)	0.01 $\mu$ F (Z) 50V

[illegible]

	Ref.No.	Part No.	Description		Ref.No.	Part No.	Description
		THT1069	SCREW(FOR SHIELD CASE)			TQF82880	HIGH VOLTAGE LABEL
		XTB4+12J	SCREW			TQF83825-6	SERIAL NO. LABEL
		XTN5+16A	SCREW			TQF85363-8	CARTON LABEL
			<TX-D2171XD-E,M-2171XD-E>	△		TQF86608	EARTH CAUTION LABEL
		XTN5+16J	SCREW<M-1F71XD-ET>			I.C	
		XTN5+25A	SCREW<M-2171XD-E>		IC101	CU32105A-102	IC
		XTV3+8G	SCREW<TX-D2171XD-E>		IC102	TVRB024	IC
		XTV3+10A	SCREW		IC103	TVSA0066	IC
		XTV3+12J	SCREW		IC104	24LC16BTISN	IC
		XYA4+EF8	SCREW		IC105	MM74HC74AMX	IC
△		XYE3+EJ10	SCREW		IC106	LF347MX	IC
	20	M51KYY540X	COLOR PICTURE TUBE		IC107	LF347MX	IC
△	21	TNPAO141-21	PC BOARD W/COMPONENT(SSP)		IC109	TC7WOOF	IC
△	22	TNPHOO24-21	PC BOARD W/COMPONENT (MAIN)<TX-D2171XD-E>		IC111	TC74HC14AF	IC
△	22	TNPHOO24-31	PC BOARD W/COMPONENT (MAIN) <M-2171XD-E,M-1F71XD-ET>		IC114	TVSA0065	IC
△	24	TXANP32171NM	PC BOARD W/COMPONENT(CRT/ VIDEO INPUT/EHT/SW/TCO)		IC280	M52347SP	IC
					IC302	LF347MX	IC
△	23	MEY51LHB3	DEFLECTION YOKE		IC430	STV9379	IC
	25	TLCB006-1	CONVERGENCE COIL		IC540	LA6500-FA	IC
△	26	TSPA023	DEGAUSS COIL		IC541	MB88141APFTF	IC
△	27	TSPFO02	TILT COIL		IC581	LA6500-FA	IC
		TSXF089	SIGNAL CORD		IC582	AN8025M	IC
					IC583	LM358MX	IC
		TSXL013	FLAT CORD(27P)		IC601	LM393MX	IC
		TSXL014	FLAT CORD(22P)		IC820	STR-S6531	HYBRID IC
		TSXL015	FLAT CORD(7P)		IC840	L78LR05C-MA	IC
△		TSXL016	FLAT CORD(30P)		IC850	TVS1103	IC
		TSX8484	POWER CORD		IC851	LM358MX	IC
					IC852	LM358MX	IC
		TJEA023	TAB TERMINAL		IC853	LM358MX	IC
		TSXX033	2P CONNECTOR ASSY		IC854	AN78NO8	IC
		TSXX044	1P CONNECTOR ASSY		IC855	L78MO5T	IC
		TSXX045	1P TERMINAL ASSY		IC856	LM358MX	IC
		TXAJTV7P154	7P CONNECTOR ASSY		IC858	UPC1093T	IC
					IC901	LM358MX	IC
△	F801	TXA3A22171NM	CRT EARTH LEAD		IC990	LM358MX	IC
		XBA2C40TB15L	FUSE(4.OA)		IC1001	M52721SP	IC
		TSMAO03	MAGNET		IC1101	M52721SP	IC
		T4F31519Q	POLYESTER TAPE(50M)		IC1201	M52721SP	IC
		T4F72425Q	COTTON TAPE(55M)		IC1306	MB88141APFTF	IC
		T4F90240	MAIRA TAPE		IC1331	MM74HCTOOMX	IC
		TPCA37201	OUTER CARTON <TX-D2171XD-E>		IC1334	AN78LO5M-E1	IC
		TPCA37201A	OUTER CARTON<M-2171XD-E>		IC1341	SHW3528	HYBRID IC
		TPCA50501	OUTER CARTON<M-1F71XD-ET>		IC1342	LM358MX	IC
					IC1351	LM324MX	IC
		TXAPD1D2171T	FILLER(TOP)		IC1405	LSC4317P	IC
		TXAPD3D2162B	FILLER(BOTTOM)		IC8001	LM324MX	IC
		TPE894011-2	SET COVER			TRANSISTORS	
△		TQE8513-2	FUN BAG COVER		IC1332	XN1531	TRANSISTOR
		TQBEO113	INSTRUCTION BOOK		IC1333	XN5531	TRANSISTOR
△			<TX-D2171XD-E> INSTRUCTION BOOK		Q11	2SK1848	TRANSISTOR
△		TQBEO129	<M-2171XD-E> INSTRUCTION BOOK		Q12	2SD602R	TRANSISTOR
		TQBEO129-1	<M-1F71XD-ET> INSTRUCTION BOOK		Q13	2SC4412-45	TRANSISTOR
					Q14	2SC4412-45	TRANSISTOR
		TQBEO151	INSTRUCTION BOOK(TCO95) <M-1F71XD-ET>		Q15	2SA1682-45	TRANSISTOR
		TQZXO20-1	CONFORMITY SHEET		Q101	UN2211	TRANSISTOR
		TQFA273	PTB LABEL(INNER)		Q102	XN1401	TRANSISTOR
		TQFA343	BAR CODE LABEL		Q103	XN4501	TRANSISTOR
			<M-2171XD-E,M-1F71XD-ET>		Q104	XDA114EU	TRANSISTOR</

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
Q107	IMH11A	TRANSISTOR	Q870	2SC3938R	TRANSISTOR
Q108	IMH11A	TRANSISTOR	Q871	2SD1820AR	TRANSISTOR
Q109	IMD3A	TRANSISTOR	Q872	2SB1219AQ	TRANSISTOR
Q160	2SB1219AQ	TRANSISTOR	Q873	2SJ306RB11LB	TRANSISTOR
Q350	2SD2394EF	TRANSISTOR	Q881	2SC4080DETD	TRANSISTOR
Q351	2SB1565EF	TRANSISTOR	Q882	XDC114EU	TRANSISTOR
Q352	2SC4620V25	TRANSISTOR	Q883	XDC114EU	TRANSISTOR
Q530	XDC114EU	TRANSISTOR	Q890	XDC114EU	TRANSISTOR
Q531	2SC3938R	TRANSISTOR	Q891	IMD3A	TRANSISTOR
Q532	2SD1820AR	TRANSISTOR	Q901	2SC3311AR	TRANSISTOR
Q533	2SB1219AQ	TRANSISTOR	Q902	2SA1309AQ	TRANSISTOR
Q534	2SK1468	TRANSISTOR	Q903	2SC1473AR	TRANSISTOR
Q535	2SD1820AR	TRANSISTOR	Q904	2SC3311AR	TRANSISTOR
Q536	2SB1219AQ	TRANSISTOR	Q905	2SA1309AQ	TRANSISTOR
Q540	2SK2161RB-LB	TRANSISTOR	Q906	2SK1917F91	TRANSISTOR
Q541	XDC114EU	TRANSISTOR	Q907	2SK1917F91	TRANSISTOR
Q550	2SC5243002FD	TRANSISTOR	Q960	IMZ1A	TRANSISTOR
Q560	XDC114EU	TRANSISTOR	Q961	FMW1	TRANSISTOR
Q561	2SK2135	TRANSISTOR	Q962	IMZ1A	TRANSISTOR
Q562	XDC114EU	TRANSISTOR	Q963	2SK2015	TRANSISTOR
Q563	2SK2161RB-LB	TRANSISTOR	Q990	2SD1994AR	TRANSISTOR
Q564	XDC114EU	TRANSISTOR	Q991	2SB1322AR	TRANSISTOR
Q565	2SK2161RB-LB	TRANSISTOR	Q992	2SD1994AR	TRANSISTOR
Q566	XDC114EU	TRANSISTOR	Q993	2SB1322AR	TRANSISTOR
Q567	2SK2135	TRANSISTOR	Q1021	2SC4270	TRANSISTOR
Q568	UN221F	TRANSISTOR	Q1022	2SA1764	TRANSISTOR
Q580	2SC1473AR	TRANSISTOR	Q1023	2SC4270	TRANSISTOR
Q601	XDC114EU	TRANSISTOR	Q1071	2SC4412-45	TRANSISTOR
Q602	2SD1820AR	TRANSISTOR	Q1075	2SC4412-45	TRANSISTOR
Q603	2SB1219AQ	TRANSISTOR	Q1076	2SA1682-45	TRANSISTOR
Q604	FS10SM-18A	TRANSISTOR	Q1121	2SC4270	TRANSISTOR
Q605	2SK1507-91M	TRANSISTOR	Q1122	2SA1764	TRANSISTOR
Q661	XDC114EU	TRANSISTOR	Q1123	2SC4270	TRANSISTOR
Q662	2SB1322AR	TRANSISTOR	Q1171	2SC4412-45	TRANSISTOR
Q663	XDC114EU	TRANSISTOR	Q1175	2SC4412-45	TRANSISTOR
Q671	XDC114EU	TRANSISTOR	Q1176	2SA1682-45	TRANSISTOR
Q673	2SJ307RB11LB	TRANSISTOR	Q1221	2SC4270	TRANSISTOR
Q675	2SD1820AR	TRANSISTOR	Q1222	2SA1764	TRANSISTOR
Q676	2SB1219AQ	TRANSISTOR	Q1223	2SC4270	TRANSISTOR
Q685	2SD1820AR	TRANSISTOR	Q1271	2SC4412-45	TRANSISTOR
Q811	IMD3A	TRANSISTOR	Q1275	2SC4412-45	TRANSISTOR
Q820	2SC4620V25	TRANSISTOR	Q1276	2SA1682-45	TRANSISTOR
Q824	2SD1820AR	TRANSISTOR	Q1301	XDA114EU	TRANSISTOR
Q825	2SB1220R	TRANSISTOR	Q1302	XDA114EU	TRANSISTOR
Q850	2SB940PLB	TRANSISTOR	Q1303	XDC114EU	TRANSISTOR
Q851	2SC1473QNC	TRANSISTOR	Q1304	XDC114EU	TRANSISTOR
Q852	2SB941P	TRANSISTOR	Q1321	2SA1739R	TRANSISTOR
Q853	2SD1819AQ	TRANSISTOR	Q1322	XDC114EU	TRANSISTOR
Q854	2SB941P	TRANSISTOR	Q1323	2SC1473AR	TRANSISTOR
Q855	2SD1819AQ	TRANSISTOR	Q1324	2SC1473AR	TRANSISTOR
Q856	2SB941P	TRANSISTOR	Q1351	2SB1220R	TRANSISTOR
Q857	2SD1819AQ	TRANSISTOR	Q1352	XDC114EU	TRANSISTOR
Q858	2SB941P	TRANSISTOR	Q1353	XDC114EU	TRANSISTOR
Q859	2SD1819AQ	TRANSISTOR	Q1354	2SC4632RB7LB	TRANSISTOR
Q860	2SD1266P	TRANSISTOR	Q1355	2SC3938R	TRANSISTOR
Q861	2SB1219AQ	TRANSISTOR	Q1356	2SC3757R	TRANSISTOR
Q862	2SB1218AQ	TRANSISTOR	Q8001	FMS1A	TRANSISTOR
Q863	IMH11A	TRANSISTOR	Q8002	FMS1A	TRANSISTOR
Q864	XDC114EU	TRANSISTOR	Q8050	XDC114EU	TRANSISTOR
Q865	2SC3938R	TRANSISTOR		DIODES	
Q866	XDC114EU	TRANSISTOR	D11	MA153A	DIODE
Q867	XDC114EU	TRANSISTOR			

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
D12	MA3150M	DIODE	D543	ERA81004	DIODE
D13	MA174	DIODE	D544	MA4120M	DIODE
D14	MA111	DIODE	D550	FMQ-G5GSLF	DIODE
D15	MA8150M	DIODE	D552	MA143A	DIODE
D101	SML1816W	DIODE(LED)<TX-D2171XD-E>	D553	MA142WK	DIODE
D101A	SML1816W	DIODE(LED) <M-2171XD-E,M-1F71XD-ET>	D554	MA4200NM	DIODE
D102	MA714	DIODE	D561	MA111	DIODE
D103	DTZTT115R6B	DIODE	D580	RL2Z	DIODE
D104	DTZTT115R6B	DIODE	D581	RL2Z	DIODE
			D601	DTZTT1115C	DIODE
D105	DTZTT115R6B	DIODE	D650	EU02Z	DIODE
D106	DTZTT115R6B	DIODE	D651	RU1P	DIODE
D107	DTZTT115R6B	DIODE	D652	RU1P	DIODE
D108	DTZTT115R6B	DIODE	D660	MA111	DIODE
D109	DTZTT115R6B	DIODE	D671	MA4091NM	DIODE
D110	DTZTT115R6B	DIODE	D672	RL2Z	DIODE
D111	DTZTT115R6B	DIODE	D673	RL2Z	DIODE
D112	DTZTT115R6B	DIODE	D674	MA4390M	DIODE
D113	DTZTT115R6B	DIODE	D676	MA8150M	DIODE
D114	DTZTT115R6B	DIODE	D682	DTZTT114R7B	DIODE
D115	DTZTT115R6B	DIODE	D683	MA8150M	DIODE
D116	DTZTT115R6B	DIODE	△ D801	ERZVEAV431	VARISTOR
D117	MA714	DIODE	D805	DTZTT117R5A	DIODE
D118	MA152K	DIODE	△ D808	RBV606	DIODE
D119	MA152K	DIODE	D810	MA8300M	DIODE
D123	DTZTT115R6B	DIODE	D811	MA111	DIODE
D124	DTZTT115R6B	DIODE	D812	MA111	DIODE
D125	DTZTT115R6B	DIODE	D820	ERZVEAV431	VARISTOR
D126	DTZTT115R6B	DIODE	D821	RG2A2	DIODE
D127	DTZTT115R6B	DIODE	D822	DTZTT1120C	DIODE
D128	MA357	DIODE	D824	EGO1Z	DIODE
D129	DTZTT115R6B	DIODE	D840	DTZTT115R6B	DIODE
D130	DTZTT115R6B	DIODE	D850	FMC-26UALF	DIODE
D160	MA111	DIODE	D851	ERC3806	DIODE
D211	DTZTT115R6B	DIODE	D853	CB903-4	DIODE
D212	DTZTT115R6B	DIODE	D854	RL4Z	DIODE
D231	DTZTT115R6B	DIODE	D855	RL4Z	DIODE
D232	DTZTT115R6B	DIODE	D856	RK49	DIODE
D233	DTZTT115R6B	DIODE	D857	RL4Z	DIODE
D234	DTZTT115R6B	DIODE	D858	MA1051M	DIODE
D235	DTZTT115R6B	DIODE	D861	MA174	DIODE
D236	DTZTT115R6B	DIODE	D862	MA113	DIODE
D237	DTZTT115R6B	DIODE	D863	MA113	DIODE
D301	DTZTT115R6B	DIODE	D864	MA111	DIODE
D350	MA111	DIODE	D870	MA111	DIODE
D351	MA8056M	DIODE	D871	MA111	DIODE
D352	MA8150M	DIODE	D872	MA111	DIODE
D353	MA8330M	DIODE	D873	DTZTT1115C	DIODE
D354	MA8330M	DIODE	D874	MA111	DIODE
D431	ERA1502	DIODE	D875	MA4091NM	DIODE
D432	MA8051L	DIODE	D876	CB903-4	DIODE
D433	MA111	DIODE	D878	MA8056M	DIODE
D434	MA111	DIODE	D890	MA8033H	DIODE
D435	MA8390M	DIODE	D891	MA111	DIODE
D436	MA8390M	DIODE	D901	EU02A	DIODE
D530	DTZTT115R6B	DIODE	D902	EU02A	DIODE
D531	DTZTT115R6B	DIODE	D903	MTZJ5R1A	ZENER DIODE
D532	MA111	DIODE	D904	EU02A	DIODE
D533	MA111	DIODE	D905	MA111	DIODE
D540	DTZTT114R7B	DIODE	D906	MA111	DIODE
D541	MA4150M	DIODE	D945	MA111	DIODE
D542	MA111	DIODE	D946	ERA81004	DIODE

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
D1001	MA30WA	DIODE	D1367	MA4330M	DIODE
D1021	DCC010	DIODE	D1368	MA188	DIODE
D1022	DTZTT113ROB	DIODE	D1390	DTZTT115R6B	DIODE
D1023	1SS376	DIODE	D1391	DTZTT115R6B	DIODE
D1024	1SS376	DIODE	D1392	DTZTT115R6B	DIODE
D1031	MA111	DIODE	D1401	MA111	DIODE
D1032	MA111	DIODE	D1402	MA111	DIODE
D1033	MA111	DIODE	D1403	MA111	DIODE
D1035	MA111	DIODE	D1404	MA111	DIODE
D1041	MA111	DIODE	D8050	MA8200H	DIODE
D1042	MA111	DIODE		COIL & TRANSFORMERS	
D1043	MA111	DIODE	L101	ELJFA5R6JB	CHIP COIL
D1045	MA111	DIODE	L550	EXCELD35C	LC COMBINATION
D1053	1SS376	DIODE	L551	EXCELSR35S	LC COMBINATION
D1076	MA111	DIODE	L552	EXCELSR35S	LC COMBINATION
D1101	MA30WA	DIODE	L553	EXCELSR35S	LC COMBINATION
D1121	DCC010	DIODE	L563	ELHKLBO31B	COIL
D1122	DTZTT113ROB	DIODE	L564	ELHKLBO30B	COIL
D1123	1SS376	DIODE	L580	ELC12E821	CHOKE COIL
D1124	1SS376	DIODE	L581	ELC18B272G	CHOKE COIL
D1131	MA111	DIODE	L596	TLH85815T	COIL
D1132	MA111	DIODE	L598	ELEY102KA	PEAKING COIL
D1133	MA111	DIODE	L599	ELEY102KA	PEAKING COIL
D1135	MA111	DIODE	△ L601	ETS29AC1U9DC	COIL
D1141	MA111	DIODE	L671	TLU101K106	PEAKING COIL
D1142	MA111	DIODE	L673	TSK8031	FERRITE CORE
D1143	MA111	DIODE	L681	ELEY102KA	PEAKING COIL
D1145	MA111	DIODE	△ L801	ELF18D656K	LINE FILTER
D1153	1SS376	DIODE	△ L802	ELF18D656K	LINE FILTER
D1176	MA111	DIODE	L803	TLPF066	CHOKE COIL
D1201	MA30WA	DIODE	L804	TLPF066	CHOKE COIL
D1221	DCC010	DIODE	L806	TSK8031	FERRITE CORE
D1222	DTZTT113ROB	DIODE	L807	EXCELD35C	LC COMBINATION
D1223	1SS376	DIODE	△ L850	TLP85708R	CHOKE COIL
D1224	1SS376	DIODE	L860	EXCELD35C	LC COMBINATION
D1231	MA111	DIODE	L861	EXCELD35C	LC COMBINATION
D1232	MA111	DIODE	L863	EXCELD35C	LC COMBINATION
D1233	MA111	DIODE	L864	TSK8031	FERRITE CORE
D1235	MA111	DIODE	L865	TSK8031	FERRITE CORE
D1241	MA111	DIODE	L866	TSK8031	FERRITE CORE
D1242	MA111	DIODE	L867	EXCELD35C	LC COMBINATION
D1243	MA111	DIODE	L881	EXCELD35C	LC COMBINATION
D1245	MA111	DIODE	L950	ELC18B271L	CHOKE COIL
D1253	1SS376	DIODE	L1018	ELJFA1ROKB	CHIP COIL
D1276	MA111	DIODE	L1055	ELJNA82NMB	CHIP COIL
D1303	MA142K	DIODE	L1118	ELJFA1ROKB	CHIP COIL
D1304	MA142K	DIODE	L1155	ELJNA82NMB	CHIP COIL
D1305	MA142K	DIODE	L1218	ELJFA1ROKB	CHIP COIL
D1306	MA142K	DIODE	L1255	ELJNA82NMB	CHIP COIL
D1307	MA4056M	DIODE	L1321	TSK8029	FERRITE CORE
D1320	DTZTT115R6B	DIODE	L1330	TSK8029	FERRITE CORE
D1321	MA4056M	DIODE	L1351	TSK8029	FERRITE CORE
D1351	DTZTT119R1C	DIODE	L1356	TSK8029	FERRITE CORE
D1353	HZT33-09F12	DIODE	L1358	TSK8029	FERRITE CORE
D1354	HZT33-09F12	DIODE	L1360	TSK8029	FERRITE CORE
D1355	ERZCO5DK201U	VARISTOR	L1361	TSK8029	FERRITE CORE
D1357	EU02Z	DIODE	L1362	TLU100K106	PEAKING COIL
D1358	MA704	DIODE	L1390	ELEXH151KA	PEAKING COIL
D1359	MA111	DIODE	T350	ETS28AD259AC	TRANSFORMER
D1362	MA111	DIODE	△ T541	ETH19K178AM	H.DRIVE TRANSFORMER
D1363	MA111	DIODE	△ T542	ETS29AC1X9AC	TRANSFORMER
D1366	MA4330M	DIODE			

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
△ T601	TLFA00965	FLYBACK TRANSFORMER	C196	ECUX1H101JCG	C 100PF J 50V
△ T801	TLPA028	POWER TRANSFORMER	C211	ECUX1H121JCG	C 120PF J 50V
	CAPACITORS		C212	ECUX1H150JCN	C 15PF J 50V
C11	ECUX1C225ZFW	C 2.2UF Z 16V	C213	ECUX1H271JCG	C 270PF J 50V
C13	ECUX1H102KBN	C 1000PF K 50V	C214	ECUX1H103KBG	C 0.01UF K 50V
C14	ECUX1H104ZFX	C 0.1UF Z 50V	C281	ECEA1HKG010	E 1UF 50V
C16	ECUX1H561KBN	C 560PF K 50V	C282	ECEA1HKG2R2	E 2.2UF 50V
C17	TACBG2E683KT	C 0.068UF K 250V	C287	ECEA1HKG4R7	E 4.7UF 50V
			C290	ECEA1HKG4R7	E 4.7UF 50V
			C291	ECEA1HKG2R2	E 2.2UF 50V
C101	ECUX1H150JCN	C 15PF J 50V	C292	ECUX1H151JCG	C 150PF J 50V
C102	ECUX1H150JCN	C 15PF J 50V	C294	ECUX1H103KBG	C 0.01UF K 50V
C103	ECEVOJG220G	E 22UF 6.3V	C295	ECEA1CKG470	E 47UF 16V
C104	ECUX1H103KBG	C 0.01UF K 50V	C301	ECUX1H103KBG	C 0.01UF K 50V
C108	ECUX1H101JCG	C 100PF J 50V	C302	ECUX1H104ZFX	C 0.1UF Z 50V
C110	ECUX1H104ZFX	C 0.1UF Z 50V	C303	ECUX1H104ZFX	C 0.1UF Z 50V
C111	ECEAOJGE471	E 470UF 6.3V	C350	ECEA2CGE101	E 100UF 160V
C113	ECUX1C104KBX	C 0.1UF K 16V	C351	ECUX1H120JCN	C 12PF J 50V
C114	ECUX1H102KBN	C 1000PF K 50V	C352	ECEA1HGE101	E 100UF 50V
C115	ECUX1H102KBN	C 1000PF K 50V	C353	ECUX1H103KBG	C 0.01UF K 50V
C116	ECUX1H101JCG	C 100PF J 50V	C354	ECKD3D222JBP	C 2200PF J 2KV
C117	ECUX1H101JCG	C 100PF J 50V	C355	ECKD2H151KB5	C 150PF K 500V
C118	ECUX1H104ZFX	C 0.1UF Z 50V	C357	ECEA1EGN330	E 33UF 25V
C119	ECUX1H222JCN	C 2200PF J 50V	C358	ECUX1H153KBX	C 0.015UF K 50V
C120	ECUX1H152KBN	C 1500PF K 50V	C359	ECUX1H102KBN	C 1000PF K 50V
C122	TCUX1C105KBM	C 1UF K 16V	C360	ECUX1H563KBW	C 0.056UF K 50V
C130	ECEV1CG100G	E 10UF 16V	C361	ECUX1H563KBW	C 0.056UF K 50V
C131	ECEAOJGE471	E 470UF 6.3V	C362	ECUX1H104ZFX	C 0.1UF Z 50V
C132	ECUX1H104ZFX	C 0.1UF Z 50V	C363	ECUX1H080DCN	C 8PF D 50V
C133	ECEV1CG100G	E 10UF 16V	C364	ECUX1H103KBG	C 0.01UF K 50V
C134	ECUX1H104ZFX	C 0.1UF Z 50V	C365	ECKD3D102KBP	C 1000PF K 2KV
C135	ECUX1H104ZFX	C 0.1UF Z 50V	C366	ECEA1HGE101	E 100UF 50V
C136	ECUX1H104ZFX	C 0.1UF Z 50V	C367	ECEA1VGE101	E 100UF 35V
C137	ECUX1H104ZFX	C 0.1UF Z 50V	C370	ECQV1H224JL	P 0.22UF J 50V
C138	ECEV1CG100G	E 10UF 16V	C371	ECUX1H103KBG	C 0.01UF K 50V
C139	ECUX1H104ZFX	C 0.1UF Z 50V	C431	ECQV1184JM	P 0.18UF J 100V
C140	ECUX1H104ZFX	C 0.1UF Z 50V	C432	ECQV1474JZ	P 0.47UF J 100V
C141	ECUX1H104ZFX	C 0.1UF Z 50V	C433	ECEA1EGE101	E 100UF 25V
C142	ECUX1H104ZFX	C 0.1UF Z 50V	C434	ECEA1VGE221	E 220UF 35V
C143	ECUX1H101JCG	C 100PF J 50V	C435	ECEA1EGE101	E 100UF 25V
C144	ECUX1H101JCG	C 100PF J 50V	C436	ECQB1103KF	P 0.01UF K 100V
C151	ECUX1H104ZFX	C 0.1UF Z 50V	C437	ECUX1C105ZFW	C 1UF Z 16V
C152	ECUX1H104ZFX	C 0.1UF Z 50V	C438	ECUX1C105ZFW	C 1UF Z 16V
C153	ECUX1C224KBX	C 0.22UF K 16V	C439	ECUX1H183KBX	C 0.018UF K 50V
C154	ECUX1H104ZFX	C 0.1UF Z 50V	C440	ECUX1H222KBN	C 2200PF K 50V
C155	ECUX1H104ZFX	C 0.1UF Z 50V	C530A	ECUX1H180JCN	C 18PF J 50V
C162	ECXS1H223JZ	P 0.022UF J 50V	C530B	ECUX1H180JCN	C 18PF J 50V
C163	ECUX1H151JCG	C 150PF J 50V	C531	ECQV1H104JL	P 0.1UF J 50V
C164	ECUX1H151JCG	C 150PF J 50V	C532	ECEA1CGE101	E 100UF 16V
C165	ECUX1H151JCG	C 150PF J 50V	C533	ECA1AFQ102L	E 1000UF 10V
C166	ECUX1H151JCG	C 150PF J 50V	C540	ECEA1HGE470	E 47UF 50V
C167	ECUX1H151JCG	C 150PF J 50V	C541	ECKD2H332KB5	C 3300PF K 500V
C168	ECUX1H151JCG	C 150PF J 50V	C542	ECEA1VGE101	E 100UF 35V
C169	ECUX1C224KBX	C 0.22UF K 16V	C543	ECUX1H104ZFX	C 0.1UF Z 50V
C170	ECUX1H151JCG	C 150PF J 50V	C544	ECUX1H104ZFX	C 0.1UF Z 50V
C171	ECEV1CG470G	E 47UF 16V	C545	ECEA1CGE100	E 10UF 16V
C173	ECUX1H104ZFX	C 0.1UF Z 50V	C546	ECUX1H104ZFX	C 0.1UF Z 50V
C174	ECEA1CGE471	E 470UF 16V	C550	ECKD3F221KBP	C 220PF K 3KV
C183	ECUX1H104ZFX	C 0.1UF Z 50V	C551	ECWH15H332HN	PP 3300PF H 1.5KV
C184	ECEV1CG100G	E 10UF 16V	C552	ECWH15H332HN	PP 3300PF H 1.5KV
C185	ECUX1H104ZFX	C 0.1UF Z 50V	C553	ECWH15H332HN	PP 3300PF H 1.5KV
C186	ECEV1CG100G	E 10UF 16V	C554	ECWH15H332HN	PP 3300PF H 1.5KV
C191	ECUX1H104ZFX	C 0.1UF Z 50V			



Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
C557	ECUX1H104ZFX	C 0.1UF Z 50V	C822	ECEA1HGE331	E 330UF 50V
C558	ECUX1H103KBG	C 0.01UF K 50V	C824	ECEA1HGE470	E 47UF 50V
C560	ECWF2134HBB	PP 0.13UF H 200V	C825	TACBK2A224MT	C 0.22UF M 100V
C561	ECWF2114HBB	PP 0.11UF H 200V	C826	ECUX1H223KBX	C 0.022UF K 50V
C562	ECWF2274HBB	PP 0.27UF H 200V	C827	ECUX1H681KBN	C 680PF K 50V
C563	ECWF2624HBB	PP 0.24UF H 200V	C828	ECEA1HGE470	E 47UF 50V
C564	ECWF2185HBB	PP 1.8UF H 200V	C829	ECEA1HGE4R7	E 4.7UF 50V
C565	ECEA1CGE101	E 100UF 16V	△ C830	ECKDRS472ME	C 4700PF M
C566	ECWF2134HBB	PP 0.13UF H 200V	△ C831	ECKDRS472ME	C 4700PF M
C567	ECKD2H102KB5	C 1000PF K 500V	C832	ECKD3D271KBP	C 270PF K 2KV
C568	ECKD2H102KB5	C 1000PF K 500V	C833	ECUX1H472KBG	C 4700PF K 50V
C580	ECA1CFQ681L	E 680UF 16V	C834	ECUX1H471KBN	C 470PF K 50V
C581	ECA1CFQ681L	E 680UF 16V	C835	ECEA2AGE100	E 10UF 100V
C582	ECEA2AGE100	E 10UF 100V	C840	ECQV1H104JL	P 0.1UF J 50V
C583	ECUX1H104ZFX	C 0.1UF Z 50V	C841	ECUX1H103KBG	C 0.01UF K 50V
C585	TACBH2E224MT	C 0.22UF M 250V	C842	ECQV1224JM	P 0.22UF J 100V
C586	ECUX1H104ZFX	C 0.1UF Z 50V	C843	ECQV1H334JL	P 0.33UF J 50V
C587	ECUX1H103KBG	C 0.01UF K 50V	C844	ECUX1C224KBW	C 0.22UF K 16V
C588	TACBH2E224MT	C 0.22UF M 250V	C850	TACAY2E108MA	E 1000UF 250V
C589	ECUX1C105ZFX	C 1UF Z 16V	C851	ECOS2CA331AB	E 330UF 160V
C598	ECEA1HGN100	E 10UF 50V	C852	ECKD3A561KBP	C 560PF K 1KV
C599	ECEA2EGE2R2	E 2.2UF 250V	C853	ECA1HHG222	E 2200UF 50V
C600	ECEA1CGE101	E 100UF 16V	C854	ECEA1EGE472	E 4700UF 25V
C601	ECQV1H224JL	P 0.22UF J 50V	C855	ECEA1EGE222	E 2200UF 25V
C602	ECUX1H473KBW	C 0.047UF K 50V	C856	ECEA1CGE222	E 2200UF 16V
C603	ECWH12H272HS	PP 2700PF H 1.2KV	C857	ECEA1EGE472	E 4700UF 25V
C604	ECWH15H122HN	PP 1200PF H 1.5KV	C858	ECEA2AGE221	E 220UF 100V
C605	ECWH15H122HN	PP 1200PF H 1.5KV	C859	ECEA1VGE101	E 100UF 35V
C606	ECWH12H272HS	PP 2700PF H 1.2KV	C860	ECEA1EGE221	E 220UF 25V
C607	ECKD3F221KBP	C 220PF K 3KV	C861	ECEA1CGE221	E 220UF 16V
C620	ECUX1H102KBN	C 1000PF K 50V	C862	ECEA1AGE102	E 1000UF 10V
C650	ECEA2CGE100	E 10UF 160V	C863	ECEA1EGE221	E 220UF 25V
C660	ECEA2CGE2R2	E 2.2UF 160V	C865	ECEA1EGE101	E 100UF 25V
C670	ECUX1H103KBG	C 0.01UF K 50V	C866	ECEA1VGE101	E 100UF 35V
C671	ECEA2VGE4R7	E 4.7UF 350V	C867	ECEA1HGE330	E 33UF 50V
C672	ECQE2104KF	P 0.1UF K 200V	C868	ECEA1HGE330	E 33UF 50V
C673	ECKD2H103ZU	C 0.01UF Z 500V	C869	ECEA1HGE100	E 10UF 50V
C674	ECUX1C104KBX	C 0.1UF K 16V	C870	ECEA2AGE220	E 22UF 100V
C675	ECWF2334HBB	PP 0.33UF H 200V	C871	ECEA1CGE470	E 47UF 16V
C676	ECEA1CGE222	E 2200UF 16V	C872	ECUX1H103KBG	C 0.01UF K 50V
C677	ECQE1184JF	P 0.18UF J 100V	C873	ECUX1H121JCG	C 120PF J 50V
C678	ECUX1H333KBX	C 0.033UF K 50V	C880	ECUX1H121JCG	C 120PF J 50V
C679	ECEA1HGN3R3	E 3.3UF 50V	C881	ECUX1H102KBN	C 1000PF K 50V
C680	ECEA1CGE220	E 22UF 16V	C882	ECUX1H151JCG	C 150PF J 50V
C681	ECUX1H104ZFX	C 0.1UF Z 50V	C883	ECEA1EGE470	E 47UF 25V
C682	ECUX1H104ZFX	C 0.1UF Z 50V	C884	ECUX1H332KBN	C 3300PF K 50V
C683	ECUX1C334JBW	E 0.33UF J 16V	C885	ECEA1VGE470	E 47UF 35V
C684	ECEA1HGE3R3	E 3.3UF 50V	C886	ECEA1CGE101	E 100UF 16V
C685	ECUX1H390JCG	C 39PF J 50V	C887	ECQE2563JF	P 0.056UF J 200V
C686	ECUX1H104ZFX	C 0.1UF Z 50V	C888	ECEA2EGE4R7	E 4.7UF 250V
C690	ECUX1H104ZFX	C 0.1UF Z 50V	C890	ECKD2H122KB5	C 1200PF K 500V
△ C691	ECUX1H104ZFX	C 0.1UF Z 50V	C891	ECQE2335KF	P 3.3UF K 200V
△ C801	ECQU2A105MVZ	PP 1UF M 250V	C892	ECKD2H103ZU	C 0.01UF Z 500V
△ C802	ECKDRS222ME	C 2200PF M	C894	ECEAOJGE101	E 100UF 6.3V
△ C803	ECKDRS222ME	C 2200PF M	C898	ECQE2684KF	P 0.68UF K 200V
△ C805	ECQU2A105MVZ	PP 1UF M 250V	C901	ECOS2EB471BB	E 470UF 250V
△ C807	ECKDRS102KB	C 1000PF K	C902	TACCZ335P630	P 3.3UF K 630V
C811	ECUX1H222KBN	C 2200PF K 50V	C903	TACCZ335P630	P 3.3UF K 630V
C812	ECUX1H223KBX	C 0.022UF K 50V	C904	ECEA1EGE101	E 100UF 25V
C816	ECKD3D561JBP	C 560PF J 2KV	C906	ECUX1H104ZFX	C 0.1UF Z 50V
C820	ECWF4105JZ	PP 1UF J 400V	C921	ECEA1EGE101	E 100UF 25V
C821	ECQE6473JZ3M	P 0.047UF J 600V	C940	ECUX1H472KBG	C 4700PF K 50V

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
C941	ECUX1H152KBN	C 1500PF K 50V	C1135	ECEA1HGN3R3	E 3.3UF 50V
C942	ECQV1H104JL	P 0.1UF J 50V	C1136	ECUX1H102KBN	C 1000PF K 50V
C943	ECEAOJGE471	E 470UF 6.3V	C1140	ECUX1H104ZFX	C 0.1UF Z 50V
C944	ECEA1EGE470	E 47UF 25V	C1141	ECEAOJG221	E 220UF 6.3V
C990	ECUX1E334ZFW	C 0.33UF Z 25V	C1142	ECUX1H103KBG	C 0.01UF K 50V
C991	ECUX1E334ZFW	C 0.33UF Z 25V	C1144	ECUX1H104ZFX	C 0.1UF Z 50V
C992	ECEA1CGE100	E 10UF 16V	C1145	ECUX1H104ZFX	C 0.1UF Z 50V
C993	ECEA1CGE100	E 10UF 16V	C1146	ECEA1HGE010	E 1UF 50V
C994	ECEA1CGE331	E 330UF 16V	C1148	ECEA1CGE100	E 10UF 16V
C1001	ECEA1CGE100	E 10UF 16V	C1151	ECUX1H510JCG	C 51PF J 50V
C1002	ECEA1CGE100	E 10UF 16V	C1154A	TACBH2E224MT	C 0.22UF M 250V
C1003	ECEA1CGE470	E 47UF 16V	C1154B	TACBH2E224MT	C 0.22UF M 250V
C1004	ECUX1H103KBG	C 0.01UF K 50V	C1155	ECKD2H102KB5	C 1000PF K 500V
C1005	ECUX1C105ZFW	C 1UF Z 16V	C1158	ECUX1H05OCCN	C 5PF C 50V
C1006	ECUX1H104ZFX	C 0.1UF Z 50V	C1171	TACBG2E683KT	C 0.068UF K 250V
C1008	TACCU393P100	C 0.039UF 100V	C1172	ECEA2CGE010	E 1UF 160V
C1009	ECUX1H103KBG	C 0.01UF K 50V	C1173	ECUX1H470JCG	C 47PF J 50V
C1010	ECEA1CGE470	E 47UF 16V	C1201	ECEA1CGE100	E 10UF 16V
C1011	ECEA1CGE101	E 100UF 16V	C1202	ECEA1CGE100	E 10UF 16V
C1012	ECEA1CGE100	E 10UF 16V	C1203	ECEA1CGE470	E 47UF 16V
C1013	ECUX1H103KBG	C 0.01UF K 50V	C1204	ECUX1H103KBG	C 0.01UF K 50V
C1014	ECUX1H103KBG	C 0.01UF K 50V	C1205	ECUX1C105ZFW	C 1UF Z 16V
C1015	ECUX1C105ZFW	C 1UF Z 16V	C1206	ECUX1H104ZFX	C 0.1UF Z 50V
C1017	ECEA1CGE101	E 100UF 16V	C1208	TACCU393P100	C 0.039UF 100V
C1021	ECUX1H103KBG	C 0.01UF K 50V	C1209	ECUX1H103KBG	C 0.01UF K 50V
C1031	ECEAOJG221	E 220UF 6.3V	C1210	ECEA1CGE470	E 47UF 16V
C1032	ECUX1H103KBG	C 0.01UF K 50V	C1212	ECEA1CGE100	E 10UF 16V
C1035	ECEA1HGN3R3	E 3.3UF 50V	C1213	ECUX1H103KBG	C 0.01UF K 50V
C1036	ECUX1H102KBN	C 1000PF K 50V	C1214	ECUX1H103KBG	C 0.01UF K 50V
C1040	ECUX1H104ZFX	C 0.1UF Z 50V	C1215	ECUX1C105ZFW	C 1UF Z 16V
C1041	ECEAOJG221	E 220UF 6.3V	C1217	ECEA1CGE101	E 100UF 16V
C1042	ECUX1H103KBG	C 0.01UF K 50V	C1221	ECUX1H103KBG	C 0.01UF K 50V
C1044	ECUX1H104ZFX	C 0.1UF Z 50V	C1231	ECEAOJG221	E 220UF 6.3V
C1045	ECUX1H104ZFX	C 0.1UF Z 50V	C1232	ECUX1H103KBG	C 0.01UF K 50V
C1046	ECEA1HGE010	E 1UF 50V	C1235	ECEA1HGN3R3	E 3.3UF 50V
C1047	ECUX1C105ZFW	C 1UF Z 16V	C1236	ECUX1H102KBN	C 1000PF K 50V
C1048	ECEA1CGE100	E 10UF 16V	C1240	ECUX1H104ZFX	C 0.1UF Z 50V
C1051	ECUX1H510JCG	C 51PF J 50V	C1241	ECEAOJG221	E 220UF 6.3V
C1054A	TACBH2E224MT	C 0.22UF M 250V	C1242	ECUX1H103KBG	C 0.01UF K 50V
C1054B	TACBH2E224MT	C 0.22UF M 250V	C1244	ECUX1H104ZFX	C 0.1UF Z 50V
C1055	ECKD2H102KB5	C 1000PF K 500V	C1245	ECUX1H104ZFX	C 0.1UF Z 50V
C1058	ECUX1H05OCCN	C 5PF C 50V	C1246	ECEA1HGE010	E 1UF 50V
C1071	TACBG2E683KT	C 0.068UF K 250V	C1247	ECUX1C105ZFW	C 1UF Z 16V
C1072	ECEA2CGE010	E 1UF 160V	C1248	ECEA1CGE100	E 10UF 16V
C1073	ECUX1H470JCG	C 47PF J 50V	C1251	ECUX1H510JCG	C 51PF J 50V
C1101	ECEA1CGE100	E 10UF 16V	C1254A	TACBH2E224MT	C 0.22UF M 250V
C1102	ECEA1CGE100	E 10UF 16V	C1254B	TACBH2E224MT	C 0.22UF M 250V
C1103	ECEA1CGE470	E 47UF 16V	C1255	ECKD2H102KB5	C 1000PF K 500V
C1104	ECUX1H103KBG	C 0.01UF K 50V	C1258	ECUX1H05OCCN	C 5PF C 50V
C1105	ECUX1C105ZFW	C 1UF Z 16V	C1271	TACBG2E683KT	C 0.068UF K 250V
C1106	ECUX1H104ZFX	C 0.1UF Z 50V	C1272	ECEA2CGE010	E 1UF 160V
C1108	TACCU393P100	C 0.039UF 100V	C1273	ECUX1H470JCG	C 47PF J 50V
C1109	ECUX1H103KBG	C 0.01UF K 50V	C1301	ECKD3D332JBP	C 3300PF J 2KV
C1110	ECEA1CGE470	E 47UF 16V	C1302	TCUX2H101JCM	C 100PF J 500V
C1112	ECEA1CGE100	E 10UF 16V	C1303	ECUX1H560JCG	C 56PF J 50V
C1113	ECUX1H103KBG	C 0.01UF K 50V	C1305	ECUX1H102KBN	C 1000PF K 50V
C1114	ECUX1H103KBG	C 0.01UF K 50V	C1307	ECUX1H102KBN	C 1000PF K 50V
C1115	ECUX1C105ZFW	C 1UF Z 16V	C1308	ECUX1H102KBN	C 1000PF K 50V
C1117	ECEA1CGE101	E 100UF 16V	C1309	ECUX1H560JCG	C 56PF J 50V
C1121	ECUX1H103KBG	C 0.01UF K 50V	C1311	ECUX1H103KBG	C 0.01UF K 50V
C1131	ECEAOJG221	E 220UF 6.3V	C1312	ECUX1H103KBG	C 0.01UF K 50V
C1132	ECUX1H103KBG	C 0.01UF K 50V	C1314	ECUX1H103KBG	C 0.01UF K 50V

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
C1320	TACCG102P200	C 1000PF 200V	J2	ERJ6GEYOR00	M O OHM 1/10W
C1321	ECUX1H102KBN	C 1000PF K 50V	J101B	ERJ6GEYOR00	M O OHM 1/10W
C1322	ECUX1H101JCG	C 100PF J 50V	J301	ERJ8GCVOR00	M O OHM 1/8W
C1330	TACCU103P200	C 0.01UF 200V	J303	ERJ8GCVOR00	M O OHM 1/8W
C1331	ECUX1H103KBG	C 0.01UF K 50V	J304	ERJ8GCVOR00	M O OHM 1/8W
C1332	ECEAOJGK470	E 47UF 6.3V	J305	ERJ8GCVOR00	M O OHM 1/8W
C1333	ECUX1H103KBG	C 0.01UF K 50V	J503	ERJ6GEYOR00	M O OHM 1/10W
C1334	ECUX1H103KBG	C 0.01UF K 50V	J504	ERJ6GEYOR00	M O OHM 1/10W
C1335	ECUX1H103KBG	C 0.01UF K 50V	J505	ERJ6GEYOR00	M O OHM 1/10W
C1336	ECEA1CKG470	E 47UF 16V	J509	ERJ6GEYOR00	M O OHM 1/10W
C1337	ECUX1H103KBG	C 0.01UF K 50V	J602	ERJ8GCVOR00	M O OHM 1/8W
C1338	ECUX1H103KBG	C 0.01UF K 50V	J603	ERJ8GCVOR00	M O OHM 1/8W
C1339	ECEA2CGE220	E 22UF 160V	J604	ERJ8GCVOR00	M O OHM 1/8W
C1340	ECKD2H471KB5	C 470PF K 500V	J1001	ERD25TCO	C O OHM 1/4W
C1341	ECKD2H103ZU	C 0.01UF Z 500V	J1002	ERJ6GEYOR00	M O OHM 1/10W
C1342	ECEA2EGE010	E 1UF 250V	R11	ERJ6ENF1002	M 10K OHM F 1/10W
C1344	ECUX1H103KBG	C 0.01UF K 50V	R12	ERJ6ENF4703	M 470K OHM F 1/10W
C1345	ECEA1HKG010	E 1UF 50V	R13	ERJ6ENF1002	M 10K OHM F 1/10W
C1346	ECEA1HKG010	E 1UF 50V	R14	ERJ6ENF3301	M 3.3K OHM F 1/10W
C1347	ECEA1CKG220	E 22UF 16V	R15	ERDS1FJ183	C 18K OHM J 1/2W
C1348	ECUX1H103KBG	C 0.01UF K 50V	R16	ERJ6ENF10R0	M 10 OHM F 1/10W
C1349	ECEA2DGE100	E 10UF 200V	R18	ERDS1FJ273	C 27K OHM J 1/2W
C1350	ECEA2CGE220	E 22UF 160V	R19	ERJ6ENF4702	M 47K OHM F 1/10W
C1351	ECEA1HGE100	E 10UF 50V	R20	ERJ6ENF4702	M 47K OHM F 1/10W
C1352	ECQE2104KF	P 0.1UF K 200V	R21	ERJ6GEYJ333	M 33K OHM J 1/10W
C1353	ECUX1H220JCN	C 22PF J 50V	R23	ERJ6GEYJ105	M 1M OHM J 1/10W
C1354	ECQE10473KF	P 0.047UF K 1KV	R24	ERJ6ENF4703	M 470K OHM F 1/10W
C1355	ECUX1H102KBN	C 1000PF K 50V	R25	ERJ6ENF1000	M 100 OHM F 1/10W
C1356	ECUX1H103KBG	C 0.01UF K 50V	R26	ERDS2TJ101	C 100 OHM J 1/4W
C1357	ECKD3D272KBP	C 2700PF K 2KV	R101	ERJ6GEYJ103	M 10K OHM J 1/10W
C1358	TACCG102P200	C 1000PF 200V	R102	ERJ6GEYJ103	M 10K OHM J 1/10W
C1359	ECUX1H683KBW	C 0.068UF K 50V	R103	ERJ6GEYJ103	M 10K OHM J 1/10W
C1360	ECEAOJGE101	E 100UF 6.3V	R104	ERJ6GEYJ222	M 2.2K OHM J 1/10W
C1362	ECUX1H103KBG	C 0.01UF K 50V	R105	ERJ6GEYJ222	M 2.2K OHM J 1/10W
C1363	ECEA1CGE101	E 100UF 16V	R106	ERJ6GEYJ103	M 10K OHM J 1/10W
C1364	ECEA1CGE470	E 47UF 16V	R107	ERJ6GEYJ103	M 10K OHM J 1/10W
C1365	ECUX1H103KBG	C 0.01UF K 50V	R108	ERJ6GEYJ391	M 390 OHM J 1/10W
C1366	ECUX1H102KBN	C 1000PF K 50V	R109	ERJ6GEYJ103	M 10K OHM J 1/10W
C1370	ECEA1EGE470	E 47UF 25V	R110	ERJ6GEYJ103	M 10K OHM J 1/10W
C1371	TACBU2H221KT	C 220PF K 500V	R111	ERJ6GEYJ152	M 1.5K OHM J 1/10W
C1372	TACBU2H221KT	C 220PF K 500V	R112	ERJ6GEYJ122	M 1.2K OHM J 1/10W
C1373	TACCU102P500	C 1000PF 500V	R113	ERJ6GEYJ104	M 100K OHM J 1/10W
C1390	ECUX1H103KBG	C 0.01UF K 50V	R114	ERJ6GEYJ104	M 100K OHM J 1/10W
C1391	ECUX1H473KBW	C 0.047UF K 50V	R120	ERJ6GEYJ392	M 3.9K OHM J 1/10W
C1392	ECUX1H330JCG	C 33PF J 50V	R121	ERJ6GEYJ103	M 10K OHM J 1/10W
C1393	ECUX1H103KBG	C 0.01UF K 50V	R123	ERJ6GEYJ122	M 1.2K OHM J 1/10W
C1394	ECEA1CGE101	E 100UF 16V	R124	ERJ6GEYJ392	M 3.9K OHM J 1/10W
C1395	ECUX1H330JCG	C 33PF J 50V	R125	ERJ6GEYJ473	M 47K OHM J 1/10W
C1396	TACCU102P500	C 1000PF 500V	R126	ERJ6GEYJ272	M 2.7K OHM J 1/10W
C1397	ECEAOJGE101	E 100UF 6.3V	R127	ERJ6GEYJ272	M 2.7K OHM J 1/10W
C1398	ECUX1H101JCG	C 100PF J 50V	R128	ERJ6GEYJ102	M 1K OHM J 1/10W
C1401	ECUX1H103KBG	C 0.01UF K 50V	R129	ERJ6GEYJ122	M 1.2K OHM J 1/10W
C1402	ECUX1H103KBG	C 0.01UF K 50V	R130	ERJ6GEYJ154	M 150K OHM J 1/10W
C1403	ECUX1H103KBG	C 0.01UF K 50V	R131	ERJ6GEYJ272	M 2.7K OHM J 1/10W
C1404	ECUX1H220JCN	C 22PF J 50V	R132	ERJ6GEYJ272	M 2.7K OHM J 1/10W
C8001	ECUX1H102KBN	C 1000PF K 50V	R133	ERJ6GEYJ272	M 2.7K OHM J 1/10W
C8002	ECUX1H273KBX	C 0.027UF K 50V	R134	ERJ6GEYJ272	M 2.7K OHM J 1/10W
RESISTORS			R135	ERJ6GEYJ471	M 470 OHM J 1/10W
C1304	ERJ6GEYOR00	M O OHM 1/10W	R136	ERJ6GEYJ470	M 47 OHM J 1/10W
D860	ERJ6GEYOR00	M O OHM 1/10W	R137	ERJ6GEYJ470	M 47 OHM J 1/10W
D1011	ERJ6GEYOR00	M O OHM 1/10W	R138	ERJ6GEYJ561	M 560 OHM J 1/10W
			R139	ERJ6GEYJ101	M 100 OHM J 1/10W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R140	ERJ6GEYJ103	M 10K OHM J 1/10W	R271	ERJ6GEYJ223	M 22K OHM J 1/10W
R141	ERJ6GEYJ103	M 10K OHM J 1/10W	R272	ERJ6GEYJ223	M 22K OHM J 1/10W
R142	ERJ6GEYJ103	M 10K OHM J 1/10W	R273	ERJ6GEYJ223	M 22K OHM J 1/10W
R143	ERJ6GEYJ683	M 68K OHM J 1/10W	R274	ERJ6GEYJ223	M 22K OHM J 1/10W
R145	ERJ6GEYJ103	M 10K OHM J 1/10W	R282	ERJ6ENF4992	M 49.9K OHM F 1/10W
R146	ERJ6GEYJ103	M 10K OHM J 1/10W	R283	ERJ6ENF8451	M 8.45K OHM F 1/10W
R149	ERJ6GEYJ822	M 8.2K OHM J 1/10W	R284	ERJ6ENF8451	M 8.45K OHM F 1/10W
R150	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R286	ERJ6GEYJ152	M 1.5K OHM J 1/10W
R151	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R288	ERJ6ENF1501	M 1.5K OHM F 1/10W
R152	ERJ12YJ471	M 470 OHM J 1/2W	R292	ERJ6GEYJ433	M 43K OHM J 1/10W
R153	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R293	ERJ6GEYJ103	M 10K OHM J 1/10W
R154	ERJ6GEYJ102	M 1K OHM J 1/10W	R301	ERJ6ENF1002	M 10K OHM F 1/10W
R155	ERJ6GEYJ224	M 220K OHM J 1/10W	R302	ERJ6ENF1502	M 15K OHM F 1/10W
R156	ERJ6GEYJ224	M 220K OHM J 1/10W	R303	ERJ6ENF1002	M 10K OHM F 1/10W
R161	ERJ6GEYJ102	M 1K OHM J 1/10W	R304	ERJ6ENF1002	M 10K OHM F 1/10W
R162	ERJ6GEYJ152	M 1.5K OHM J 1/10W	R305	ERJ6GEYJ102	M 1K OHM J 1/10W
R163	ERJ6GEYJ683	M 68K OHM J 1/10W	R306	ERJ6GEYJ154	M 150K OHM J 1/10W
R164	ERJ6GEYJ102	M 1K OHM J 1/10W	R307	ERJ6GEYJ154	M 150K OHM J 1/10W
R165	ERJ6GEYOR00	M 0 OHM 1/10W	R350	ERX3FJX3R9D	M 3.9 OHM J 3W
R166	ERJ6GEYJ103	M 10K OHM J 1/10W	R351	ERJ6GEYJ223	M 22K OHM J 1/10W
R167	ERJ6GEYJ103	M 10K OHM J 1/10W	R352	ERJ6ENF1432	M 14.3K OHM F 1/10W
R170	ERJ6ENF2202	M 22K OHM F 1/10W	R354	ERJ6ENF5621	M 5.62K OHM F 1/10W
R171	ERJ6ENF5622	M 56.2K OHM F 1/10W	R355	ERJ6ENF3922	M 39.2K OHM F 1/10W
R172	ERJ6ENF5622	M 56.2K OHM F 1/10W	R356	ERJ6ENF3242	M 32.4K OHM F 1/10W
R173	ERJ6ENF6802	M 68K OHM F 1/10W	R357	ERJ8ENF1502	M 15K OHM F 1/8W
R174	ERJ6GEYJ270	M 27 OHM J 1/10W	R358	ERJ6GEYJ333	M 33K OHM J 1/10W
R175	ERJ6GEYJ270	M 27 OHM J 1/10W	R359	ERDS2TJ184	C 180K OHM J 1/4W
R184	ERJ6GEYJ563	M 56K OHM J 1/10W	R360	ERDS2TJ184	C 180K OHM J 1/4W
R185	ERJ6GEYJ563	M 56K OHM J 1/10W	R361	ERDS2TJ184	C 180K OHM J 1/4W
R186	ERJ6GEYJ563	M 56K OHM J 1/10W	R362	ERDS2TJ154	C 150K OHM J 1/4W
R187	ERJ6GEYJ563	M 56K OHM J 1/10W	R363	ERDS2TJ154	C 150K OHM J 1/4W
R191	ERJ6GEYJ271	M 270 OHM J 1/10W	R364	ERDS2TJ274	C 270K OHM J 1/4W
R192	ERJ6GEYJ271	M 270 OHM J 1/10W	R365	ERDS2TJ274	C 270K OHM J 1/4W
R199	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R366	ERDS1FJ224	C 220K OHM J 1/2W
R200	ERJ6GEYJ471	M 470 OHM J 1/10W	R367	ERJ6GEYJ682	M 6.8K OHM J 1/10W
R201	ERJ6GEYJ101	M 100 OHM J 1/10W	R368	ERJ6ENF1003	M 100K OHM F 1/10W
R204	ERJ6GEYJ471	M 470 OHM J 1/10W	R369	ERJ6ENF5622	M 56.2K OHM F 1/10W
R205	ERJ6GEYJ101	M 100 OHM J 1/10W	R370	ERJ6GEYJ564	M 560K OHM J 1/10W
R207	ERJ6GEYJ471	M 470 OHM J 1/10W	R371	ERJ6GEYJ272	M 2.7K OHM J 1/10W
R208	ERJ6GEYJ471	M 470 OHM J 1/10W	R372	ERJ6GEYJ393	M 39K OHM J 1/10W
R209	ERJ6GEYJ471	M 470 OHM J 1/10W	R373	ERJ6GEYJ393	M 39K OHM J 1/10W
R210	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R374	ERJ6GEYJ103	M 10K OHM J 1/10W
R211	ERJ6GEYJ471	M 470 OHM J 1/10W	R375	ERDS1FJ102	C 1K OHM J 1/2W
R212	ERJ6GEYJ471	M 470 OHM J 1/10W	R376	ERJ6GEYJ102	M 1K OHM J 1/10W
R213	ERJ6GEYJ334	M 330K OHM J 1/10W	R377	ERJ6GEYJ100	M 10 OHM J 1/10W
R214	ERJ6GEYJ334	M 330K OHM J 1/10W	R378	ERJ6GEYJ563	M 56K OHM J 1/10W
R222	ERJ6GEYJ103	M 10K OHM J 1/10W	R379	ERJ6GEYJ274	M 270K OHM J 1/10W
R223	ERJ6GEYJ103	M 10K OHM J 1/10W	R430	ERJ6ENF2942	M 29.4K OHM F 1/10W
R224	ERJ6GEYJ563	M 56K OHM J 1/10W	R431	EROS2CKF1582	M 15.8K OHM F 1/4W
R225	ERJ6GEYJ271	M 270 OHM J 1/10W	R432	EROS2CKF4021	M 4.02K OHM F 1/4W
R226	ERJ6GEYJ271	M 270 OHM J 1/10W	R433	ERJ6ENF3321	M 3.32K OHM F 1/10W
R231	ERJ6GEYJ102	M 1K OHM J 1/10W	R434	EROS2CKF3571	M 3.57K OHM F 1/4W
R232	ERJ6GEYJ102	M 1K OHM J 1/10W	R435	ERX2SJ1R2	M 1.2 OHM J 2W
R233	ERJ6GEYJ102	M 1K OHM J 1/10W	R436	ERG2SJ391	M 390 OHM J 2W
R234	ERJ6GEYJ102	M 1K OHM J 1/10W	R437	ERDS2TJ1R0	C 1 OHM J 1/4W
R235	ERJ6GEYOR00	M 0 OHM 1/10W	R438	ERJ6GEYJ123	M 12K OHM J 1/10W
R236	ERJ6GEYOR00	M 0 OHM 1/10W	R439	ERJ6GEYJ104	M 100K OHM J 1/10W
R237	ERJ6GEYOR00	M 0 OHM 1/10W	R440	ERDS2TJ470	C 47 OHM J 1/4W
R240	ERJ6GEYJ271	M 270 OHM J 1/10W	R528	ERJ6ENF3322	M 33.2K OHM F 1/10W
R241	ERJ6GEYJ271	M 270 OHM J 1/10W	R529	ERJ6ENF1102	M 11K OHM F 1/10W
R242	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R530	ERQ12AJ4R7	F 4.7 OHM J 1/2W
R243	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R531	ERJ6GEYJ103	M 10K OHM J 1/10W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R532	ERJ6GEYJ103	M 10K OHM J 1/10W	R606	ERJ6GEYJ153	M 15K OHM J 1/10W
R533	ERJ6GEYJ473	M 47K OHM J 1/10W	R607	ERJ6GEYJ103	M 10K OHM J 1/10W
R534	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R608	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R535	ERJ6GEYJ102	M 1K OHM J 1/10W	R609	ERQ14AJ100	F 10 OHM J 1/4W
R536	ERD25FJ101K	C 100 OHM J 1/4W	R610	ERJ6GEYJ391	M 390 OHM J 1/10W
R537	ERJ6GEYJ100	M 10 OHM J 1/10W	R611	ERJ6GEYJ182	M 1.8K OHM J 1/10W
R538	ERX2SJ33	M 0.33 OHM J 2W	R612	ERJ6GEYJ102	M 1K OHM J 1/10W
R539	ERJ6GEYJ101	M 100 OHM J 1/10W	R650	ERD25FJ100K	C 10 OHM J 1/4W
R540	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R652	ERQ12AJ101	F 100 OHM J 1/2W
R541	ERJ6ENF3241	M 3.24K OHM F 1/10W	R663	ERJ6GEYJ223	M 22K OHM J 1/10W
R542	ERJ6GEYJ563	M 56K OHM J 1/10W	R664	ERJ6ENF5601	M 5.6K OHM F 1/10W
R543	ERJ6ENF1022	M 10.2K OHM F 1/10W	R670	ERD25FJ330K	C 33 OHM J 1/4W
R544	ERG3FJ101	M 100 OHM J 3W	R671	ERD25FJ105K	C 1M OHM J 1/4W
R545	ERG1SJ561	M 560 OHM J 1W	R674	ERJ6GEYJ471	M 470 OHM J 1/10W
R546	ERJ6GEYJ470	M 47 OHM J 1/10W	R675	ERJ6GEYJ103	M 10K OHM J 1/10W
R547	ERJ6GEYJ332	M 3.3K OHM J 1/10W	R676	ERQ14AJ220	F 22 OHM J 1/4W
R548	ERX3FJX1R5D	M 1.5 OHM J 3W	R677	ERJ6GEYJ471	M 470 OHM J 1/10W
R549	ERX3FJX1R8D	M 1.8 OHM J 3W	R678	ERJ6GEYJ331	M 330 OHM J 1/10W
R550	ERX3FJX6R8D	M 6.8 OHM J 3W	R679	ERJ12YJ101	M 100 OHM J 1/2W
R551	ERX3FJX1R2D	M 1.2 OHM J 3W	R680	ERJ6GEYJ333	M 33K OHM J 1/10W
R553	ERJ6ENF3402	M 34K OHM F 1/10W	R681	EROS2CKF2493	M 249K OHM F 1/4W
R554	ERJ6ENF3322	M 33.2K OHM F 1/10W	R682	EROS2CKF2493	M 249K OHM F 1/4W
R555	ERJ6ENF1872	M 18.7K OHM F 1/10W	R683	EROS2CKF2493	M 249K OHM F 1/4W
R556	ERJ6ENF2741	M 2.74K OHM F 1/10W	R684	EROS2CKF2493	M 249K OHM F 1/4W
R557	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R685	ERJ6ENF4021	M 4.02K OHM F 1/10W
R558	ERJ6GEYJ184	M 180K OHM J 1/10W	R686	ERJ6GEYJ223	M 22K OHM J 1/10W
R560	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R687	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R561	ERJ6GEYJ100	M 10 OHM J 1/10W	R688	EROS2CKF2493	M 249K OHM F 1/4W
R562	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R689	ERJ6GEYJ560	M 56 OHM J 1/10W
R563	ERJ6GEYJ100	M 10 OHM J 1/10W	R690	ERJ6GEYJ562	M 5.6K OHM J 1/10W
R564	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R691	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R565	ERJ6GEYJ100	M 10 OHM J 1/10W	R692	ERJ6ENF3922	M 39.2K OHM F 1/10W
R566	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R693	ERJ6ENF4751	M 4.75K OHM F 1/10W
R567	ERJ6GEYJ100	M 10 OHM J 1/10W	R694	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R568	ERDS2TJ104	C 100K OHM J 1/4W	R695	ERJ6ENF3923	M 392K OHM F 1/10W
R569	ERDS2TJ104	C 100K OHM J 1/4W	R696	ERJ6GEYJ225	M 2.2M OHM J 1/10W
R570	ERDS2TJ104	C 100K OHM J 1/4W	R801	ERC12AGK394	S 390K OHM K 1/2W
R571	ERDS2TJ104	C 100K OHM J 1/4W	R802	ERJ6GEYJ273	M 27K OHM J 1/10W
R572	ERG2SJ221	M 220 OHM J 2W	R805	ERJ6GEYJ222	M 2.2K OHM J 1/10W
R573	ERDS1FJ221	C 220 OHM J 1/2W	R807	ERJ8GCYJ562	M 5.6K OHM J 1/8W
R575	ERJ6GEYJ271	M 270 OHM J 1/10W	R808	ERJ6GEYOR00	M 0 OHM 1/10W
R577	ERJ6GEYJ271	M 270 OHM J 1/10W	R810	ERJ6GEYJ820	M 82 OHM J 1/10W
R580	ERQ12AJR12HK	F 0.12 OHM J 1/2W	R811	ERDS1FJ224	C 220K OHM J 1/2W
R581	ERQ12AJR12HK	F 0.12 OHM J 1/2W	R812	ERDS1FJ224	C 220K OHM J 1/2W
R582	ERX2SJ3R3	M 3.3 OHM J 2W	R813	ERJ6GEYJ152	M 1.5K OHM J 1/10W
R583	ERJ6GEYJ392	M 3.9K OHM J 1/10W	R814	ERJ6GEYJ330	M 33 OHM J 1/10W
R584	ERX2FJ3R3	M 3.3 OHM J 2W	R815	ERJ6GEYJ681	M 680 OHM J 1/10W
R585	ERG1SJ390	M 39 OHM J 1W	R817	ERW2PKR18	W 0.18 OHM K 2W
R587	ERJ6GEYJ153	M 15K OHM J 1/10W	R818	ERJ6GEYOR00	M 0 OHM 1/10W
R588	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R819	ERDS1FJ473	C 47K OHM J 1/2W
R590	ERD25FJ153K	C 15K OHM J 1/4W	R820	ERG2SJ183	M 18K OHM J 2W
R591	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R821	TARRS3B333J1	M 33K OHM J 3W
R592	ERJ6GEYJ102	M 1K OHM J 1/10W	R822	ERJ6GEYJ182	M 1.8K OHM J 1/10W
R593	ERJ12YJ5R6	M 5.6 OHM J 1/2W	R823	ERJ6GEYJ222	M 2.2K OHM J 1/10W
R593A	ERJ12YJ5R6	M 5.6 OHM J 1/2W	R824	ERJ6GEYJ681	M 680 OHM J 1/10W
R598	ERQ12AJ220	F 22 OHM J 1/2W	R825	ERJ6GEYJ821	M 820 OHM J 1/10W
R599	ERQ12AJ270	F 27 OHM J 1/2W	R826	ERDS1FJ474	C 470K OHM J 1/2W
R600	ERD25FJ330K	C 33 OHM J 1/4W	R827	ERG2SJ183	M 18K OHM J 2W
R601	ERJ6GEYJ471	M 470 OHM J 1/10W	R828	ERJ6GEYOR00	M 0 OHM 1/10W
R602	ERJ12YJ222	M 2.2K OHM J 1/2W	R830	ERJ6GEYJ104	M 100K OHM J 1/10W
R604	ERJ6GEYJ223	M 22K OHM J 1/10W	R831	ERQ12AJ1R0	F 1 OHM J 1/2W
R605	ERJ6GEYJ471	M 470 OHM J 1/10W	R832	ERJ8GCYJ201	M 200 OHM J 1/8W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R833	ERJ6ENF1023	M 102K OHM F 1/10W	R893A	ERJ6ENF1002	M 10K OHM F 1/10W
R834	ERW2PKR22	W 0.22 OHM K 2W	R894	ERJ6GEYJ563	M 56K OHM J 1/10W
R835	ERJ6ENF4751	M 4.75K OHM F 1/10W	R895A	ERJ6GEYJ332	M 3.3K OHM J 1/10W
R836	ERJ6GEYJ822	M 8.2K OHM J 1/10W	R895B	ERJ6ENF3321	M 3.32K OHM F 1/10W
R837	ERJ6ENF2492	M 24.9K OHM F 1/10W	R896	ERJ6GEYJ182	M 1.8K OHM J 1/10W
R838	ERDS1FJ151	C 150 OHM J 1/2W	R897	ERDS2TJ272	C 2.7K OHM J 1/4W
R839	ERJ6GEYJ102	M 1K OHM J 1/10W	R898	ERG3FJ103	M 10K OHM J 3W
R840	ERJ6GEYOR00	M 0 OHM 1/10W	R899A	ERG1SJ221	M 220 OHM J 1W
R841	ERJ6GEYJ102	M 1K OHM J 1/10W	R899B	ERJ6GEYJ473	M 47K OHM J 1/10W
R842	ERDS2TJ271	C 270 OHM J 1/4W	R901	ERG3FJ392	M 3.9K OHM J 3W
R843	ERJ6ENF1822	M 18.2K OHM F 1/10W	R902	ERDS2TJ333	C 33K OHM J 1/4W
R844	ERJ6ENF4751	M 4.75K OHM F 1/10W	R903	ERDS2TJ102	C 1K OHM J 1/4W
R845	ERJ6GEYJ102	M 1K OHM J 1/10W	R904	ERJ6GEYJ103	M 10K OHM J 1/10W
R846	ERG3FJ471	M 470 OHM J 3W	R905	ERDS2TJ274	C 270K OHM J 1/4W
R847	ERDS2TJ151	C 150 OHM J 1/4W	R906	ERJ6GEYJ473	M 47K OHM J 1/10W
R848	ERJ6ENF2001	M 2K OHM F 1/10W	R907	ERJ8GICYJ102	M 1K OHM J 1/8W
R849	ERJ6ENF1331	M 1.33K OHM F 1/10W	R908	ERJ8GICYJ102	M 1K OHM J 1/8W
R850	ERQ12AJR10HK	F 0.1 OHM J 1/2W	R909	ERDS2TJ471	C 470 OHM J 1/4W
R851	ERQ12AJR10HK	F 0.1 OHM J 1/2W	R910	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R852	ERJ6GEYJ102	M 1K OHM J 1/10W	R911	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R853	ERQ12AJR10HK	F 0.1 OHM J 1/2W	R912	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R854	ERQ12AJR15K	F 0.15 OHM J 1/2W	R913	ERJ6GEYJ471	M 470 OHM J 1/10W
R855	ERQ12AJR10HK	F 0.1 OHM J 1/2W	R914	ERJ8GEYK2R2	M 2.2 OHM K 1/8W
R856	ERQ12AJR10HK	F 0.1 OHM J 1/2W	R915	ERJ6GEYJ820	M 82 OHM J 1/10W
R857	ERQ12AJR10HK	F 0.1 OHM J 1/2W	R986	ERJ6GEYJ332	M 3.3K OHM J 1/10W
R858	ERJ6GEYJ102	M 1K OHM J 1/10W	R987	ERJ6GEYJ103	M 10K OHM J 1/10W
R859	ERJ8GICYJ821	M 820 OHM J 1/8W	R988	ERJ6GEYJ102	M 1K OHM J 1/10W
R860	ERJ6ENF1243	M 124K OHM F 1/10W	R989	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R861	ERJ6ENF4531	M 4.53K OHM F 1/10W	R990	ERJ6ENF6042	M 60.4K OHM F 1/10W
R862	ERJ6GEYJ102	M 1K OHM J 1/10W	R991	ERJ6ENF9092	M 90.9K OHM F 1/10W
R863	ERDS2TJ271	C 270 OHM J 1/4W	R992	ERJ6ENF4322	M 43.2K OHM F 1/10W
R864	ERJ6ENF4992	M 49.9K OHM F 1/10W	R993	ERJ6ENF1001	M 1K OHM F 1/10W
R865	ERJ6ENF4871	M 4.87K OHM F 1/10W	R994	ERJ6ENF6800	M 680 OHM F 1/10W
R866	ERJ6GEYJ102	M 1K OHM J 1/10W	R995	ERJ6ENF2321	M 2.32K OHM F 1/10W
R867	ERDS2TJ271	C 270 OHM J 1/4W	R996	ERJ6ENF3321	M 3.32K OHM F 1/10W
R868	ERJ6ENF2552	M 25.5K OHM F 1/10W	R997	ERJ6ENF2741	M 2.74K OHM F 1/10W
R869	ERJ6ENF4751	M 4.75K OHM F 1/10W	R998	ERJ6ENF2741	M 2.74K OHM F 1/10W
R870	ERJ6GEYJ332	M 3.3K OHM J 1/10W	R999	ERDS2TJ2R7	C 2.7 OHM J 1/4W
R871	ERJ6GEYJ103	M 10K OHM J 1/10W	R999A	ERQ14AJ100	F 10 OHM J 1/4W
R872	ERJ6GEYJ103	M 10K OHM J 1/10W	R1001	ERJ6GEYJ222	M 2.2K OHM J 1/10W
R873	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R1002	ERJ6GEYJ471	M 470 OHM J 1/10W
R874	ERJ6GEYJ392	M 3.9K OHM J 1/10W	R1003	ERJ6GEYJ100	M 10 OHM J 1/10W
R875	ERJ6GEYJ823	M 82K OHM J 1/10W	R1004	ERJ6GEYJ182	M 1.8K OHM J 1/10W
R876	ERJ6ENF1001	M 1K OHM F 1/10W	R1011	ERJ6GEYJ220	M 22 OHM J 1/10W
R877	ERJ6GEYJ562	M 5.6K OHM J 1/10W	R1012	ERJ6ENF3001	M 3K OHM F 1/10W
R878	ERJ6GEYJ104	M 100K OHM J 1/10W	R1013	ERJ6ENF2001	M 2K OHM F 1/10W
R879	ERJ6GEYJ331	M 330 OHM J 1/10W	R1017	ERJ6GEYJ100	M 10 OHM J 1/10W
R880	ERDS2TJ102	C 1K OHM J 1/4W	R1020	ERJ6GEYJ751	M 750 OHM J 1/10W
R881	ERD25FJ330K	C 33 OHM J 1/4W	R1021	ERJ6GEYJ271	M 270 OHM J 1/10W
R882	ERJ6GEYJ103	M 10K OHM J 1/10W	R1022	ERJ6GEYJ100	M 10 OHM J 1/10W
R883	ERDS2TJ272	C 2.7K OHM J 1/4W	R1027	ERJ6GEYJ101	M 100 OHM J 1/10W
R884	ERJ6ENF1002	M 10K OHM F 1/10W	R1028	ERJ6GEYJ220	M 22 OHM J 1/10W
R885	ERJ6ENF1002	M 10K OHM F 1/10W	R1032	ERJ12YJ471	M 470 OHM J 1/2W
R886	ERJ6GEYJ103	M 10K OHM J 1/10W	R1033	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R887	ERG1SJ683	M 68K OHM J 1W	R1034	ERJ6GEYJ152	M 1.5K OHM J 1/10W
R888	ERJ6ENF1211	M 1.21K OHM F 1/10W	R1035	ERJ6ENF11R5	M 11.5 OHM F 1/10W
R888A	ERJ6ENF1002	M 10K OHM F 1/10W	R1036	ERJ6ENF75R0	M 75 OHM F 1/10W
R889	ERJ6ENF1821	M 1.82K OHM F 1/10W	R1037	ERJ6GEYOR00	M 0 OHM 1/10W
R889A	ERJ6ENF1002	M 10K OHM F 1/10W	R1042	ERJ12YJ471	M 470 OHM J 1/2W
R890	ERQ14AJ220	F 22 OHM J 1/4W	R1043	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R891	ERJ6ENF1001	M 1K OHM F 1/10W	R1051	ERJ6ENF47R5	M 47.5 OHM F 1/10W
R892	ERJ6ENF2553	M 255K OHM F 1/10W	R1052	ERJ6ENF2870	M 287 OHM F 1/10W



Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R1053	ERJ6ENF1101	M 1.1K OHM F 1/10W	R1256	ERDS1FJ820	C 82 OHM J 1/2W
R1054	ERDS2TJ102	C 1K OHM J 1/4W	R1258	ERJ6ENF9101	M 9.1K OHM F 1/10W
R1056	ERDS1FJ680	C 68 OHM J 1/2W	R1270	ERJ12YJ224	M 220K OHM J 1/2W
R1058	ERJ6ENF9101	M 9.1K OHM F 1/10W	R1271	ERJ6GEYJ102	M 1K OHM J 1/10W
R1070	ERJ12YJ224	M 220K OHM J 1/2W	R1272	ERJ6GEYJ103	M 10K OHM J 1/10W
R1071	ERJ6GEYJ102	M 1K OHM J 1/10W	R1275	ERJ6GEYJ222	M 2.2K OHM J 1/10W
R1072	ERJ6GEYJ103	M 10K OHM J 1/10W	R1276	ERJ6ENF1503	M 150K OHM F 1/10W
R1075	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R1279	ERJ6ENF7321	M 7.32K OHM F 1/10W
R1076	ERJ6ENF1503	M 150K OHM F 1/10W	R1303	ERJ6GEYJ271	M 270 OHM J 1/10W
R1079	ERJ6ENF7321	M 7.32K OHM F 1/10W	R1304	ERJ6GEYJ271	M 270 OHM J 1/10W
R1101	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R1305	ERJ6GEYJ102	M 1K OHM J 1/10W
R1102	ERJ6GEYJ471	M 470 OHM J 1/10W	R1306	ERJ6GEYJ102	M 1K OHM J 1/10W
R1103	ERJ6GEYJ100	M 10 OHM J 1/10W	R1307	ERJ6GEYJ102	M 1K OHM J 1/10W
R1104	ERJ6GEYJ182	M 1.8K OHM J 1/10W	R1311	ERJ6GEYJ682	M 6.8K OHM J 1/10W
R1120	ERJ6GEYJ751	M 750 OHM J 1/10W	R1312	ERJ6GEYJ682	M 6.8K OHM J 1/10W
R1121	ERJ6GEYJ271	M 270 OHM J 1/10W	R1320	ERJ6GEYJ681	M 680 OHM J 1/10W
R1122	ERJ6GEYJ100	M 10 OHM J 1/10W	R1321	ERJ6GEYJ681	M 680 OHM J 1/10W
R1127	ERJ6GEYJ101	M 100 OHM J 1/10W	R1322	ERJ6GEYJ681	M 680 OHM J 1/10W
R1128	ERJ6GEYJ220	M 22 OHM J 1/10W	R1323	ERJ6GEYJ471	M 470 OHM J 1/10W
R1132	ERJ12YJ471	M 470 OHM J 1/2W	R1324	ERJ6GEYJ331	M 330 OHM J 1/10W
R1133	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R1335	ERJ6GEYJ103	M 10K OHM J 1/10W
R1134	ERJ6GEYJ152	M 1.5K OHM J 1/10W	R1338	ERJ6GEYJ104	M 100K OHM J 1/10W
R1135	ERJ6ENF11R5	M 11.5 OHM F 1/10W	R1339	ERJ6GEYJ104	M 100K OHM J 1/10W
R1136	ERJ6ENF75R0	M 75 OHM F 1/10W	R1340	ERJ6GEYJ272	M 2.7K OHM J 1/10W
R1137	ERJ6GEYOR00	M 0 OHM 1/10W	R1341	ERDS1FJ393	C 39K OHM J 1/2W
R1142	ERJ12YJ471	M 470 OHM J 1/2W	R1342	ERJ12YJ561	M 560 OHM J 1/2W
R1143	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R1343	ERJ6GEYJ222	M 2.2K OHM J 1/10W
R1151	ERJ6ENF47R5	M 47.5 OHM F 1/10W	R1344	ERJ6ENF2202	M 22K OHM F 1/10W
R1152	ERJ6ENF2870	M 287 OHM F 1/10W	R1347	ERJ6GEYOR00	M 0 OHM 1/10W
R1153	ERJ6ENF1101	M 1.1K OHM F 1/10W	R1348	EROS2CKF5113	M 511K OHM F 1/4W
R1154	ERDS2TJ102	C 1K OHM J 1/4W	R1350	ERDS1FJ225	C 2.2M OHM J 1/2W
R1156	ERDS1FJ680	C 68 OHM J 1/2W	R1351	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R1158	ERJ6ENF9101	M 9.1K OHM F 1/10W	R1352	ERJ6GEYJ152	M 1.5K OHM J 1/10W
R1170	ERJ12YJ224	M 220K OHM J 1/2W	R1353	ERJ12YJ563	M 56K OHM J 1/2W
R1171	ERJ6GEYJ102	M 1K OHM J 1/10W	R1354	ERJ6ENF8872	M 88.7K OHM F 1/10W
R1172	ERJ6GEYJ103	M 10K OHM J 1/10W	R1355	ERJ6GEYJ103	M 10K OHM J 1/10W
R1175	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R1356	ERJ12YJ125	M 1.2M OHM J 1/2W
R1176	ERJ6ENF1503	M 150K OHM F 1/10W	R1357	ERJ6ENF2003	M 200K OHM F 1/10W
R1179	ERJ6ENF7321	M 7.32K OHM F 1/10W	R1358	ERDS1FJ390	C 39 OHM J 1/2W
R1180	ERJ6GEYJ302	M 3K OHM J 1/10W	R1359	ERJ8GCVOR00	M 0 OHM 1/8W
R1181	ERJ6GEYJ133	M 13K OHM J 1/10W	R1360	ERJ6GEYJ102	M 1K OHM J 1/10W
R1201	ERJ6GEYJ222	M 2.2K OHM J 1/10W	R1361	ERJ6GEYJ474	M 470K OHM J 1/10W
R1202	ERJ6GEYJ471	M 470 OHM J 1/10W	R1362	ERJ6GEYJ223	M 22K OHM J 1/10W
R1203	ERJ6GEYJ100	M 10 OHM J 1/10W	R1363	ERJ6GEYJ472	M 4.7K OHM J 1/10W
R1204	ERJ6GEYJ182	M 1.8K OHM J 1/10W	R1365	ERJ6GEYJ223	M 22K OHM J 1/10W
R1220	ERJ6GEYJ751	M 750 OHM J 1/10W	R1366	ERJ6GEYJ562	M 5.6K OHM J 1/10W
R1221	ERJ6GEYJ271	M 270 OHM J 1/10W	R1367	ERJ6GEYJ562	M 5.6K OHM J 1/10W
R1222	ERJ6GEYJ100	M 10 OHM J 1/10W	R1368	ERJ6GEYJ824	M 820K OHM J 1/10W
R1227	ERJ6GEYJ101	M 100 OHM J 1/10W	R1369	ERJ6GEYJ103	M 10K OHM J 1/10W
R1228	ERJ6GEYJ220	M 22 OHM J 1/10W	R1370	ERJ6GEYJ103	M 10K OHM J 1/10W
R1232	ERJ12YJ471	M 470 OHM J 1/2W	R1371	ERJ6GEYJ680	M 68 OHM J 1/10W
R1233	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R1372	ERJ12YJ184	M 180K OHM J 1/2W
R1234	ERJ6GEYJ152	M 1.5K OHM J 1/10W	R1373	ERJ12YJ184	M 180K OHM J 1/2W
R1235	ERJ6ENF15R0	M 15 OHM F 1/10W	R1374	ERJ12YJ184	M 180K OHM J 1/2W
R1236	ERJ6ENF71R5	M 71.5 OHM F 1/10W	R1375	ERJ12YJ184	M 180K OHM J 1/2W
R1237	ERJ6GEYOR00	M 0 OHM 1/10W	R1376	ERJ12YJ184	M 180K OHM J 1/2W
R1242	ERJ12YJ471	M 470 OHM J 1/2W	R1377	ERDS1FJ394	C 390K OHM J 1/2W
R1243	ERJ6GEYJ472	M 4.7K OHM J 1/10W	R1378	ERJ6ENF1822	M 18.2K OHM F 1/10W
R1251	ERJ6ENF47R5	M 47.5 OHM F 1/10W	R1379	ERJ6GEYJ474	M 470K OHM J 1/10W
R1252	ERJ6ENF2870	M 287 OHM F 1/10W	R1380	TAR11CJ565B	M 5.6M OHM J 1/2W
R1253	ERJ6ENF1101	M 1.1K OHM F 1/10W	R1381	TAR11CJ565B	M 5.6M OHM J 1/2W
R1254	ERDS2TJ102	C 1K OHM J 1/4W	R1382	TAR11CJ565B	M 5.6M OHM J 1/2W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R1383	ERJ6ENF8062	M 80.6K OHM F 1/10W		THE902N	D-SUB SCREW
R1384	ERJ6ENF5902	M 59K OHM F 1/10W		THTF001	SCREW
R1385	ERJ6GEYJ472	M 4.7K OHM J 1/10W		TMKK014	INSULATION TUBE
R1386	ERJ6ENF6981	M 6.98K OHM F 1/10W		TMKK027	DOUBLE FACE TAPE
R1387	ERJ6ENF1212	M 12.1K OHM F 1/10W		TMK87907	MICA SHEET
R1388	ERJ6GEYJ332	M 3.3K OHM J 1/10W		TMM6428-1	LEAD CLAMPER
R1389	ERJ6GEYJ100	M 10 OHM J 1/10W		TSXX023	PHONO PIN CABLE(RED)
R1390	ERJ6GEYJ334	M 330K OHM J 1/10W		TSXX024	PHONO PIN CABLE(GREY)
R1391	ERJ6GEYJ222	M 2.2K OHM J 1/10W		TSXX025	PHONO PIN CABLE(BLUE)
R1392	ERJ6GEYJ182	M 1.8K OHM J 1/10W		TUCC5077	SHIELD CASE(CRT PCB)
R1393	ERJ6GEYJ102	M 1K OHM J 1/10W		TUCC5078	SHIELD PLATE(CRT PCB)
R1396	ERJ6GEYJ101	M 100 OHM J 1/10W		TUC87574	AC INLET BRACKET
R1398	ERJ6GEYJ221	M 220 OHM J 1/10W		TUWFO21-1	BNC TERMINAL BRACKET
R1399	ERJ6GEYJ220	M 22 OHM J 1/10W		XTV3+12J	SCREW
R1401	ERJ6GEYJ271	M 270 OHM J 1/10W		XWG3F10	WASHER
R1402	ERJ6GEYJ271	M 270 OHM J 1/10W		XYE3+EJ10	SCREW
R1404	ERJ6GEYJ684	M 680K OHM J 1/10W		TJEA021	HEAT SINK TERMINAL
R1405	ERJ6GEYJ684	M 680K OHM J 1/10W	CL1	TAGDSP141T	SPARK GAP
R1406	ERJ6GEYJ684	M 680K OHM J 1/10W	D1356	TAG10003	SPARK GAP
R1407	ERJ6GEYJ102	M 1K OHM J 1/10W	D1360	TJEA013	EARTH TERMINAL
R1410	ERJ6ENF4750	M 475 OHM F 1/10W	FG1		
R1411	ERJ6ENF4750	M 475 OHM F 1/10W	FG2	TJC85341	EARTH LUG
R1412	ERJ6ENF4750	M 475 OHM F 1/10W	FG3	TJC85341	EARTH LUG
R8000	ERJ6GEYJ681	M 680 OHM J 1/10W	FG4	TJC85341	EARTH LUG
R8001	ERJ6GEYJ272	M 2.7K OHM J 1/10W	FG11	TJC85341	EARTH LUG
R8008	ERJ6GEYJ102	M 1K OHM J 1/10W	FG12	TJC85341	EARTH LUG
R8009	ERJ6GEYJ102	M 1K OHM J 1/10W	FG13	TJC85341	EARTH LUG
R8010	ERJ6ENF4533	M 453K OHM F 1/10W	FG14	TJC85341	EARTH LUG
R8011	ERJ6ENF2323	M 232K OHM F 1/10W	FS801	TJC85502T	FUSE HOLDER
R8012	ERJ6ENF4753	M 475K OHM F 1/10W	FS803	TJC85502T	FUSE HOLDER
R8013	ERJ6GEYJ331	M 330 OHM J 1/10W	JC101	TJC85341	EARTH LUG
R8014	ERDS2TJ124	C 120K OHM J 1/4W	N2	TJSF09616	16P CONNECTOR
R8015	ERDS2TJ683	C 68K OHM J 1/4W	N11A	TSXX034	3P CONNECTOR ASSY
R8016	ERG2SJ183	M 18K OHM J 2W	N12	TXAJTV5P486	5P CONNECTOR ASSY
R8018	ERJ6GEYJ103	M 10K OHM J 1/10W	N102A	TJS9A849A	7P CONNECTOR(L-TYPE)
R8019	ERJ6GEYJ103	M 10K OHM J 1/10W	N102B	TJS9A848A	7P CONNECTOR
R8020	ERJ6GEYJ103	M 10K OHM J 1/10W	N105A	TJSF07910	10P CONNECTOR(L-TYPE)
R8030	ERJ6GEYJ222	M 2.2K OHM J 1/10W	N105B	TJSF08010	10P CONNECTOR
R8031	ERJ6GEYJ123	M 12K OHM J 1/10W	N231	TJSF10400	BNC TERMINAL
R8032	ERJ6GEYJ103	M 10K OHM J 1/10W	N232	TJSF10400	BNC TERMINAL
R8033	ERJ6GEYJ103	M 10K OHM J 1/10W	N351	TJS8A5130	CRT SOCKET
R8034	ERJ6GEYJ223	M 22K OHM J 1/10W	N601A	TJS9A850A	22P CONNECTOR
R8035	ERJ6GEYJ223	M 22K OHM J 1/10W	N601B	TJS9A850A	22P CONNECTOR
R8036	ERJ6GEYJ102	M 1K OHM J 1/10W	N651A	TJCD003	TERMINAL
R8037	ERJ6GEYJ102	M 1K OHM J 1/10W	N651B	TJCD003	TERMINAL
R8038	ERJ6GEYJ222	M 2.2K OHM J 1/10W	N801	TJS8A9361	AC SOCKET
R8039	ERJ6GEYJ103	M 10K OHM J 1/10W	N802A	TJS8A8303	4P SOCKET
R8040	ERJ6GEYJ103	M 10K OHM J 1/10W	N802B	TJS8A8303	4P SOCKET
R8041	ERJ6GEYJ123	M 12K OHM J 1/10W	N991	TJS118590	2P CONNECTOR
R8042	ERJ6GEYJ123	M 12K OHM J 1/10W	N1001	TJSF10400	BNC TERMINAL
R8043	ERJ6GEYJ272	M 2.7K OHM J 1/10W	N1010A	TJSF09327	27P CONNECTOR
R8050	ERDS1FJ332	C 3.3K OHM J 1/2W	N1010B	TJSF09427	27P CONNECTOR(L-TYPE)
R8051	ERDS1FJ332	C 3.3K OHM J 1/2W	N1012A	TJS8A4291	PHONO PIN CONNECTOR
R8052	ERDS1FJ332	C 3.3K OHM J 1/2W	N1012B	TJS8A4291	PHONO PIN CONNECTOR
R8053	ERDS1FJ332	C 3.3K OHM J 1/2W	N1013A	TJSF09330	30P CONNECTOR
R8054	ERX2SJ1R0	M 1 OHM J 2W	N1013B	TJSF09330	30P CONNECTOR
R8055	ERJ6GEYJ822	M 8.2K OHM J 1/10W	N1015A	TJSF09550	50P CONNECTOR
	OTHERS		N1016	TJC85342T	LUG TERMINAL
TESA010	CRT PCB HOLDER		N1017A	TJC85342T	LUG TERMINAL
TESA013	IC SPRING		N1017B	TJC85342T	LUG TERMINAL
THECO159	SCREW(FOR CRT PCB HOLDER)		N1041	TJS8A9600	15P CONNECTOR(D-SUB)
			N1042	TJSF07504	4P CONNECTOR
			N1043	EMCS0464M	4P CONNECTOR



Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
N1101	TJSF10400	BNC TERMINAL			
N1112A	TJS8A4291	PHONO PIN CONNECTOR			
N1112B	TJS8A4291	PHONO PIN CONNECTOR			
N1201	TJSF10400	BNC TERMINAL			
N1212A	TJS8A4291	PHONO PIN CONNECTOR			
N1212B	TJS8A4291	PHONO PIN CONNECTOR			
N510-1	TEL302-9	TERMINAL			
N510-2	TEL302-9	TERMINAL			
N510-3	TEL302-9	TERMINAL			
N510-4	TEL302-9	TERMINAL			
N901-1	TEL302-9	TERMINAL			
N901-2	TEL302-9	TERMINAL			
N901-3	TEL302-9	TERMINAL			
N902-1	TEL302-9	TERMINAL			
N902-2	TEL302-9	TERMINAL			
N902-3	TEL302-9	TERMINAL			
△ PC830	TLP721FD4GRH	PHOTO COUPLER			
△ PC831	TLP750D4	PHOTO COUPLER			
Q16	UN11004	IC PROTECTOR(0.4A)			
Q674	UN11008	IC PROTECTOR(0.8A)			
Q876	UN11008	IC PROTECTOR(0.8A)			
RL561	TSE80892	RELAY			
S672	TAGAO002	SPARK GAP			
S1001	TAGDSP201MF	SPARK GAP			
S1101	TAGDSP201MF	SPARK GAP			
S1201	TAGDSP201MF	SPARK GAP			
SW102	EVQPBO05K	SWITCH<TX-D2171XD-E>			
SW102	EVQ33405R	SWITCH <M-2171XD-E,M-1F71XD-ET>			
SW103	EVQPBO05K	SWITCH<TX-D2171XD-E>			
SW103	EVQ33405R	SWITCH <M-2171XD-E,M-1F71XD-ET>			
SW104	EVQPBO05K	SWITCH<TX-D2171XD-E>			
SW104	EVQ33405R	SWITCH <M-2171XD-E,M-1F71XD-ET>			
SW105	EVQPBO05K	SWITCH<TX-D2171XD-E>			
SW105	EVQ33405R	SWITCH <M-2171XD-E,M-1F71XD-ET>			
△ SW801	ESB91234A	SWITCH(POWER)			
TP1	TJC85340T	PIN			
TP2	TJC85340T	PIN			
TP3	TJC85340T	PIN			
X101	TAAAO005	CRYSTAL OSCILLATOR			